COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

BFI Waste Systems of Virginia, LLC
Old Dominion Landfill
2001 Charles City Rd
Richmond, VA 23231
Permit No. PRO - 51227

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Brunswick Waste Management Facility, LLC has applied for a Title V Operating Permit for its Lawrenceville facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date: June 6, 2006

Air Permit Manager:_____ Date: June 6, 2006

Regional Permit Manager:_____ Date: June 6, 2006

Statement of Legal and Factual Basis for BFI Waste Systems of Virginia, LLC.
Old Dominion Landfill

I. Introduction

A. Facility Information

Permittee/Facility
BFI Waste Systems of Virginia, LLC
Old Dominion Landfill
2001 Charles City Rd
Richmond, VA 23231

Responsible Official
Mr. Jeffrey P. Burrier, P.E.
General Manager

Facility Contact
Mr. Ray McGowan
Environmental Manager
(804) 226-6198 (Ext. 13)

AIRS Identification Number:	51-087-0209
Registration Number:	51227
Proposed Permit Number	PRO51227

B. Source Description

NAICS Code 562212 - this facility currently consists of a municipal solid waste landfill and the leachate storage transfer and storage system associated with the landfill. The owners of the facility plan to add a landfill gas collection and control system in the near future and it is expected that a landfill gas collection and control system will be required at this facility under 40 CFR 60, Subpart WWW regulations.

The facility is located in Henrico County, which is Non-attainment area for Ozone. Evaluation of the pollutants emitted from the landfill using the LANDGEM model, AP-42 defaults and the current site-specific landfill gas non-methane organic compound (NMOC) concentration has demonstrated that the facility is a true minor source of volatile organic compounds (VOC) for PSD applicability purposes (less than 250 tons per year).

BFI Waste Systems of Virginia, LLC (Hereafter referred to as BFI) began accepting solid waste at the landfill in May 1994 when the projected capacity of the facility was just 9.0 million cubic yards and 3.2 million mega-grams. The facility was modified in April of 1999 to increase the capacity of the landfill to 11.74 million cubic yards and 9.583 million mega-grams by vertical expansion.

BFI operates the landfill in accordance with a minor New Source Review permit from the Department of Environmental Quality's Air Division (last updated June 14, 2005), a storm water permit from the DEQ Water Division (permit VAR 540006 dated August 3, 1999) and a municipal solid waste permit from the DEQ Division of Waste (permit no. 533 dated April 22, 1993).

BFI is a Title V (40 CFR 70) area source because it has the potential to emit less than 100 tons per year of any criteria pollutant, less than 10 tons per year of any one hazardous air pollutant (HAP) and less than a total of 25 tons per year of all HAPs. BFI is subject to Title V requirements through federal New Source Performance Standards (NSPS), 40 CFR 60 Subpart WWW (§§60.750 *et seq*).

C. Compliance History

A review of the DEQ Air Division compliance files reveals that the BFI Old Dominion Landfill has no history on noncompliance with the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, any DEQ Air Division permits, or federal regulations promulgated under the authority conferred by the Clean Air Act and subsequent amendments to the Clean Air Act. The DEQ regional air compliance/enforcement staff has not yet inspected the facility. A copy of the LANDGEM model inputs and emission rate outputs are attached to this Statement of Basis for informational purposes.

II. Emission Units

A. Process Equipment

Ref.	Stack ID	Process Description	Maximum Rated Capacity
1	Fugitive	Municipal Solid Waste Landfill	11.74 million cubic yards 9.583 million mega-grams
2	2A & 2B	2 fixed roof leachate storage vessels	516 cubic meters each
3	Fugitive	Vehicle activity	1,000,000 tons of MSW per year (1.1 miles of unpaved roads, an 0.3 miles of paved roads)

B. Control Equipment

Ref.	Stack ID	Control Equipment Description	Control Efficiency (%)	Pollutant(s)
1	none	none (an approved gas collection and control system may be added later).	zero	NMOC, VOC
2	2A & 2B	none	zero	NMOC, VOC
3	fugitive	roadway watering, wet suppression	90%	particulate

III. Emissions Inventory

An emissions update was received from BFI stating that NMOC emissions from the landfill for 2004 were 6.89 tons. Particulate from vehicular activity was 3.59 tons. Emissions from the leachate storage tanks were less than 1 ton of VOC.

IV. Applicable Requirements

A. Permit Requirements from the June 14, 2005 minor source NSR permit (requirements may be abbreviated or paraphrased):

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
1	Construct and operate in accordance with NSR application	Yes	Basis for all other NSR requirements, but not an applicable requirement in itself	None
2	Landfill Design Capacity statement	Yes	Statement of Capacity from NSR application (also found in Section II of the proposed TV permit). Not an applicable requirement in itself	None
3 a b c d	Performance Standards - Fugitive Dust/Emissions Grading dust shall be controlled by wet suppression Stockpiles shall be kept moist Haul roads shall be controlled by wet suppression Dirt tracked onto public roads shall be removed.	Yes	Basis: 9 VAC 5-50-90 (New and Modified Source) Standard for Fugitive Dust/Emissions, where reasonable precautions are specified for earthmoving operations, soil cover storage, haul road and public road dust control.	VIII.N
4	Deleted	No	No requirement	None
5 a. v. vi. vii. (1) (2) (3) iv. v. b.	Performance Standards - Collection Systems If active landfill gas collection system is installed, it shall meet the specs of 40 CFR 60.759, and Be designed to handle the maximum expected gas flow rate, Have wells installed and collect gas by no later than 60 days after waste first placed for periods..... Collect gas at a rate sufficient to maintain a negative pressure..., except for: A fire or increased well temperature Use of a geo-membrane or synthetic cover... A decommissioned well, when approved, Be designed to minimize off-site gas migration, & Be approved prior to commencing construction. If passive landfill gas collection system is installed, shall meet requirements i, ii, iv, and v of the active collection system and be installed with liners installed in accordance with 40 CFR 258.40.	Yes	Basis: 40 CFR 60.752(b)(2)(ii)(C) 40 CFR 60.752 (b)(2)(ii)(A)(1) 40 CFR 60.752 (b)(2)(ii) & 40 CFR 60.755(b)(1)&(2) 40 CFR 60.752 (b)(2)(ii)(A)(3) 40 CFR 60.752 (b)(2)(ii)(C) & 60.753(b) 40 CFR 60.753 (b)(1) 40 CFR 60.753 (b)(2) 40 CFR 60.753 (b)(3) 40 CFR 60.752 (b)(2)(ii)(A)(4) 40 CFR 60.752 (b)(2)(1)(D) & 9 VAC 5-80-10C.1 40 CFR 60.752 (b)(2)(ii)(B)(1) & (2)	 III.A.8 III.A.6.a III.A.6.b III.A.7 III.A.7.a III.A.7.b III.A.7.c III.A.6.c III.A.6.d III.A.9

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
6	Performance Standards - Control Systems. Any landfill gas collection system installed shall route all of the collected gas to control systems which meet the following requirements:	Yes	Basis: 40 CFR 60.752(b)(2)(iii) & 40 CFR 60.753(e)	III.A.12.e & III.A.10
a.	An open flare in accordance with 40 CFR 60.18, or		40 CFR 60.752(b)(2)(iii)A)	III.A.10.a
b.	The control system shall reduce the collected NMOCs by 98 weight-percent; or		40 CFR 60.752(b)(2)(iii)(B)	III.A.10.b
c.	If an enclosed combustion device, the control system shall reduce the collected NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppmvd....or		40 CFR 60.752(b)(2)(iii)(B)	III.A.11.c
d.	If a boiler or process heater, the control system shall reduce the collected NMOC by 98 weight-percent, introduce the landfill gas stream into the flame zone, and operate within the parameter ranges established during the most recent test; or		40 CFR 60.752(b)(2)(iii)(B)	III.A.10.d
e.	The control system shall be a gas treatment system... controlled to reduce the vented gas NMOC by 98 weight-percent or to less than 20 ppmvd (as hexane) corrected to three percent oxygen.		40 CFR 60.752(b)(2)(iii)(C)	III.A10.e
7	Operating Standards - Collection Systems. If installed, the permittee shall operate the landfill gas collection system such that:	Yes	Basis:	III.A.12
a.	If the collection system is an active collection system, a negative pressure shall be maintained at all well heads except under the following conditions:		40 CFR 60.753(b)	III.A.12(a)
i.	A fire or increased well temperature, or			
ii.	Use of a geo-membrane or synthetic cover, when acceptable pressure limits are provided..., or			
iii.	A decommissioned well, when the design change is approved by the Director, Piedmont Region;			III.A.12(b)

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b.	Each interior well head in the collection system shall maintain a landfill gas temperature less than 55°C and shall maintain either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. A higher operating temperature, nitrogen, or oxygen value may be established...at a particular well... if the permittee demonstrates...that the elevated value does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.		40 CFR 60.753(c)	III.A.12(c)
c.	The methane concentration at the surface of the landfill shall be maintained at less than 500 ppmv above background,		40 CFR 60.753(d)	III.A.12(e)
d.	If a landfill gas control system is required by conditions 21, 22, or 23, all collected gases shall be vented to a landfill gas control system.		40 CFR 60.753(e)	III.A.12
	If monitoring demonstrates that operational requirements a, b, or c are not met, corrective action shall be taken as required by condition 17. If the specified corrective actions are taken as required, that monitored exceedance is not a violation of this condition.		40 CFR 60.753(g)	
8	Operating Standards - Control Systems. Any landfill gas control or treatment system... shall be in operation when collected landfill gas is rounted to the control or treatment system.	Yes	40 CFR 60.753(f)	III.A.13
9	Deleted	No	No Requirement	III.A.1
10	Federal Requirements. The MSW landfill shall be modified and operated in accordance with NSPS Subpart WWW and operated in accordance with 40 CFR 70.	Yes	This proposed TV permit fulfills this requirement and contains all applicable NSPS Subparts (see Section IV.A.2 below).	None
11	Deleted	No	No requirement	None

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
12	Visible Emission Limit for Flares. Each open flare shall be operated with no visible emissions except for periods not to exceed a total of 5 minutes during two consecutive hours, as determined by EPA Method 22 (40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.	Yes	9 VAC 50-260 (BACT) 40 CFR 60.18(c)(1) and (f)(1)	III.A.2
13	Visible Emission Limit for Other Combustion Control systems.	Yes	9 VAC 5-170-160 Conditions upon approval	
14	Monitoring - Test Ports and Monitoring Devices. If a landfill gas collection or control system has been installed..., test ports and monitoring devices shall be installed, located, and maintained as required in 40 CFR 60.753, 60.754, 60.755 and 60.756 so as to allow for monitoring as required and emission testing upon reasonable notice at any time. Monitoring devices shall be calibrated as required by 40 CFR 60.13, 60.753, 60.755, and 60.756. A 30 day notification, prior to the demonstration of continuous monitoring system performance shall be submitted to the Director, Piedmont Region.	Yes	9 VAC 5-50-30 F, 9 VAC 5-50-40F & 40 CFR 60.753(d) and (g), 60.755(a)(3) and (5), 60.755(b), 60.755(c)(1),(2),(3) and (5), 60.755(d)(1-4), 60.756(a),(b),(c), (f), & 40CFR 60.18(f)(2)	III.B.1 III.B.2 III.B.3 III.B.4 III.B.5 III.B.6
15	Performance Evaluations. All monitoring systems shall be installed and operational prior to conducting compliance tests. Performance evaluations of the continuous monitoring systems shall take place during the compliance tests under 9 VAC 5-50-30 or within 30 days thereafter. Two copies of the performance evaluations report shall be submitted to the Director, Piedmont Region within 45 days of said evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.	Yes	9 VAC 5-50-40	IV.B.1

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16	Monitoring - Landfill Gas Collection System. If any landfill gas collection or control system is installed..., the permittee shall monitor the landfill, gas collection system and landfill gas control system..., and shall, as a minimum:	Yes	Basis:	
a.	Measure and record gauge pressure in the gas collection header at each individual well, monthly;		40 CFR 60.755(a)(1)	III.B.3(b)
b.	Measure and record temperature of the landfill gas at each wellhead on a monthly basis,		40 CFR 60.755(a)(3)	III.B.4.(c)
c.	Measure and record nitrogen or oxygen concentration of the landfill gas in each well on a monthly basis;		40 CFR 60.755(a)(2)	III.B.4(b)
d.	Continuously monitor and record combustion temperature for enclosed combustion control devices, and for boilers and process heaters with a maximum heat input capacity greater than 150 MMBtu/hr, that are used as control devices;		40 CFR 60.755(b)(1)	III.B.6(a)
e.	Use a heat-sensing device to continuously indicate the presence of a pilot light or flare flame for open flares;		40 CFR 60.756(c)(1) & 40 CFR 60.18(f)(2)	III.B.5(a)
f.	Measure and record gas flow to the landfill gas control device at least every 15 minutes, or secure the bypass line in the closed position with a car-seal or lock-and-key and conduct visual inspections at least once every month to insure that gas flow is not diverted through the bypass line;		40 CFR 60.755(b)(2) & (c)(2)	III.B.5(b) & III.B.6(b)
g.	Monitor surface concentrations of methane at the landfill on a quarterly basis. A closed landfill that has no exceedences of the surface methane standard in three consecutive quarterly monitoring periods may skip to annual monitoring, but any exceedence of the standard returns the monitoring frequency for the landfill to quarterly; and		40 CFR 60.755(f)	III.B.2(a) & (g)
h.	Implement a program to monitor for landfill cover integrity and implement cover repairs, as necessary on a monthly basis;		40 CFR 60.755(c)(5)	III.B.2(h)

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17	Monitoring - exceedances If landfill gas collection system monitoring measurements reveal an exceedance:	Yes		
a.	Of the operating standards in condition 7(a) or (b), action shall be initiated to correct the exceedance within five calendar days of the first exceedance measurement. If the exceedance is not corrected within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the first exceedance measurement. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Director, Piedmont Region for approval.		40 CFR 60.755(a)(3) & 60.755(a)(5)	III.B.22 & III.B.23
b.	Of the operating standards in condition 7(c):			
i.	Mark and record the location of each exceedance;		40 CFR 60.755(c)(4)(i)	III.B.20(f)(i)
ii.	Perform cover maintenance or make adjustments to the vacuum of adjacent wells and remonitor that location within 10 calendar days;		40 CFR 60.755(c)(4)(ii)	III.B.20(f)(ii)
iii.	If re-monitoring of that location shows a second exceedence, take additional corrective action and re-monitor within 10 days of the second exceedence;		40 CFR 60.755(c)(4)(iii)	III.B.20(f)(iii)
iv.	If re-monitoring of the first or second exceedance shows compliance with the standard, the location of the exceedance shall be remonitored one month from the initial exceedance.		40 CFR 60.755(c)(4)(iv)	III.B.20(f)(iv)
				III.B.20(f)(v)

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b. v.	If the one month remonitoring shows compliance with the standard, no further action is necessary until the next quarterly monitoring period. If re-monitoring of the location of the second exceedence shows a third exceedence within a quarterly period (any three exceedences within the quarterly period), install a new well or other collection device within 120 days of the initial exceedence. An alternative remedy for the exceedence , and a corresponding timeline for correcting the exceedence may be submitted to the Director, Piedmont Region for approval.		40 CFR 60.755(c)(4)(v)	
18	Testing - NMOC Emission Rate. The NMOC emission rate for the calendar year for NSPS compliance (Tier 1, Tier 2 and Tier 3) and reporting purposes (initial and annual NMOC emission rate reports) shall be calculated by the permittee annually using the formula and procedures of 40 CFR 60.754(a) until such times as the calculated emission rate is equal to, or exceeds 50 mega-grams per year, an approved landfill gas collection and control system is installed, or until the landfill is closed.	Yes	Basis: 40 CFR 60.752(b), 40 CFR 60.752(b)(1)(ii), 60.757(b)(1), 60.757(b)(1)(ii), 60.757(b)(3), 60.757 Note: the NSPS requirement is ostensibly more strict than the permit since it does not provide for allowing the source to cease calculating the NMOC emission rate when a collection and control system is installed under voluntary conditions (NMOC emission rate less than 50 mega-grams).	III.A.7
19	Testing - Landfill Gas Control Systems. Initial performance tests shall be conducted for NMOC (as hexane) from any landfill control device for which an NMOC emission reduction efficiency standard or outlet NMOC concentration is required, using EPA Reference Method 25C (ref. 40 CFR 60, Appendix A) in order to determine compliance with the performance standards contained in Condition 6. The tests shall be performed, and demonstrate compliance, no later than 180 days after start-up of the approved control system. Tests shall be	Yes	9 VAC 5-50-30, 9 VAC 5-80-10 J, & 40 CFR 60.752(b)(2)(iii)(B)	III.D.4(a, b, c, and d)

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	conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and Section 120-05-0502. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region no later than 180 days after the startup of the control device. The copies of the test report shall be submitted with an initial or annual collection system monitoring report within that period and shall conform to the test report format enclosed with this permit. Additionally, the following information shall be submitted with the test report:			
a.	A diagram of the collection system showing the information required in 40 CFR 60.757(g)(1);		40 CFR 60.(f)	III.E.6
b.	The data upon which the density of the collection system and sizing of the gas mover equipment is based;		40 CFR 60.(f)(1) 40 CFR 60.(f)(2)	III.E.6(a) III.E.6(b)
c.	Documentation of reasons for excluding any areas from the gas collection system;		40 CFR 60.(f)(3)	III.E.6(c)
d.	Calculations of gas generation flow rates for each area excluded from the gas collection system based on non-productivity, and the sum for all such areas;		40 CFR 60.(f)(4)	III.E.6(d)
e.	Provisions for increasing the gas mover equipment capacity with increased gas generation flow rate, if the present gas mover is inadequate to move the maximum flow rate expected over the life of the landfill; and		40 CFR 60.(f)(5)	III.E.6(e)
f.	Provisions for the control of landfill gas migration off-site.		40 CFR 60.(f)(6)	III.E.6(f)

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20	Testing - Visible Emissions Evaluations. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9 or 22, as appropriate, shall also be conducted on the control system flares, vents, or stacks. Each Method 9 test shall consist of 10 sets of 24 consecutive observations (at fifteen second intervals) to yield a six minute average. Each Method 22 test shall consist of one 2-hour observation. The details of the tests are to be arranged with Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed no later than 180 days after start up of the control system. Should conditions prevent concurrent opacity observations, the Director, Piedmont Region shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing to be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.	Yes	9 VAC 5-170-160, 9 VAC 5-50-30, 40 CFR 60.18(f)(1)	III.E.5(a, b, c, d, e, & f)
21	Compliance - 50 Mega-gram NMOC Emission Rate Using Tier 1. If, using NSPS Subpart WWW default values for the methane generation constant (k), the methane generation potential (L_0), and the NMOC concentration of the landfill gas (C_{NMOC}), the calculated NMOC emission rate is equal to, or exceeds 50 mega-grams per year, the permittee:	No	Obsolete requirement. BFI has already calculated the Tier 1 NMOC emission rate to be over 50 mega-grams and elected to recalculate the NMOC emission rate with Tier 2 methods.	None

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
a.	Shall submit an approvable landfill gas collection and control system design plan to the Director, Piedmont Region within one year of the date of the first NMOC emission rate report in which the NMOC emission rate is equal to, or exceeds 50 mega-grams per year and shall install an approved landfill gas collection and control system within 30 months of the date of that NMOC emission rate report, or			
b.	Shall demonstrate, using a site-specific NMOC concentration calculated in accordance with the Tier 2 formula and procedures of 40 CFR 60.754(a)(3)or (5), that the calculated NMOC emission rate does not equal or exceed 50 mega-grams per year. The permittee shall submit a revised NMOC emission rate report within 180 days of the first calculated exceedence of 50 mega-grams per year and shall resume annual NMOC emission rate reporting using this site- specific NMOC concentration.			
22	Compliance - 50 Mega-gram NMOC Emission Rate Using Tier 2. If, using NSPS Subpart WWW default values for the methane generation constant (k), the methane generation potential (L_0), and using a site-specific NMOC concentration, the calculated NMOC emission rate is equal to, or exceeds 50 mega-grams per year, the permittee:	Yes	Basis: 40 CFR 60.752(b)	III.A.4 and III.D.1 and III.D.2(a)
a.	Shall submit an approvable landfill gas collection and control system design plan to the Director, Piedmont Region within one year of the date of the first NMOC emission rate report in which the NMOC emission rate is equal to, or exceeds 50 mega-grams per year and shall install an approved landfill gas collection and control system within 30 months of the date of that NMOC emission rate report, or		40 CFR 60.752(b)(1)(A), 40 CFR 60.752(b)(2)(i), and 40 CFR 60.752(b)(2)(ii)	III.A.4(a)(i), (iv), and(v)
				III.A.4 and

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b.	Shall demonstrate, using another site-specific NMOC concentration calculated in accordance with the Tier 2 formula and procedures of 40 CFR 60.754(a)(3)or (5), that the calculated NMOC emission rate does not equal or exceed 50 mega-grams per year. The permittee shall submit a revised NMOC emission rate report within 180 days of the first calculated exceedance of 50 mega-grams per year and shall resume annual NMOC emission rate reporting using this site- specific NMOC concentration, or		40 CFR 60.752(b)(1)(ii), and 40 CFR 60.757(c)(1)	III.D.2 III.E.2(a)
c.	Shall demonstrate, using a site-specific methane generation constant calculated in accordance with the Tier 3 formula and procedures of 40 CFR 60.754(a)(4) or (5), that the calculated NMOC emission rate does not equal or exceed 50 mega-grams per year. The permittee shall submit a revised NMOC emission rate report within one year of the first calculated emission rate exceeding 50 mega-grams per year and shall resume annual NMOC emission rate reporting using this site-specific methane generation constant. This calculation of the site- specific methane generation constant shall be performed only once and shall be used in all subsequent annual NMOC emission rate calculations.		Basis: 40 CFR 60.752(b), (b)(1), (b)(1)(i) and (ii), 40 CFR 60.757(c)(2), and 40 CFR 60.754(a)(4)and (a)(4)(ii)	III.A.4, III.D.3, III.D.3 and III.E.2(b)
23	Compliance - 50 Mega-gram NMOC Emission Rate Using Tier 3. If, using the NSPS Subpart WWW default value for the methane generation potential (L_0), and using a site-specific methane generation constant and a site-specific NMOC concentration, the calculated NMOC emission rate is equal to, or exceeds 50 mega-grams per year, the permittee shall submit an approvable landfill gas collection and control system design plan to the Director, Piedmont Region within one year of the date of the first NMOC emission rate report in which the NMOC emission	Yes	Basis: 40 CFR 60.752(b)(1)(ii), (b)(2)(i) and (ii), and 40 CFR 60.754(a)(4) and (a)(4)(i)	III.A.4, III.D.1, III.D.3, III.A.4(a)(i), (iv), and(v)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
	rate is equal to, or exceeds 50 mega-grams per year and shall install the approved landfill gas collection and control system within 30 months of the date of that NMOC emission rate report.			
24	Compliance - Gas Collection and Control System Design Plan. An approvable landfill gas collection and control system design plan, if required by conditions 21, 22, or 23, shall be prepared by a professional engineer, shall meet the design requirements of 40 CFR 60.752(b)(2) and 60.759, shall contain provisions for emissions control, testing and monitoring equipment sufficient to operate in accordance with 40 CFR 60.753 through 60.756, and shall contain any necessary alternatives to the operational standards, compliance measures, monitoring, record keeping or reporting procedures of 40 CFR 60.753 through 60.758.	Yes	Basis: 40 CFR 60.752 (b)(2)(i)(A-C), 60.752(b)(2)(ii)(A-B), 752(b)(2)(iii), and 60.757	III.A.5
25	Deleted.	No	No requirement remaining. Deleted from permit after copy of Initial Design Report was provided to DEQ (condition fulfilled).	None
26	Deleted.	No	No requirement remaining. Deleted from permit after copy of Initial NMOC Report was provided to DEQ (condition fulfilled).	None
27	Reports - Annual NMOC Emission Rate. Not later than April 15th of each year, the permittee shall submit an annual NMOC emission rate report to the Director, Piedmont Regional Office, containing the information required by 40 CFR 60.757(b)(1) and (2). If the estimated NMOC emission rate as reported in the annual NMOC emission rate report is less than 50 mega-grams per year in each of the next five consecutive years, the permittee may select to submit an estimate of the NMOC emission	Yes	Basis: 40 CFR 60.752(b)(1)(i), 60.754(a)(3)(iii), 60.754(a)(4)(ii) 40 CFR 60.757(b), (b)(1), (b)(1)(i), (b)(1)(ii),(b)(2), and (b)(3) 9 VAC 5-50-50	III.A.4(b), III.E.1(a-c), and III.E.2(a-b)

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	rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the highest solid waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. The five-year estimate shall be revised at least once every five years or when a new highest solid waste occurs. The formula and procedures of 40 CFR 60.754(a) shall be used to estimate the NMOC emission rates. All data, calculations, sample reports and measurements upon which the estimates are based shall be included in the report. NMOC emission rate reports are no longer required after the installation of an approved landfill gas collection and control system during such time as the collection and control system is in operation and in compliance.			
28	Reports - Annual Collection and Control System Monitoring. The permittee shall submit the following information... within 180 days of the startup of an active landfill gas collection system or control system and annually thereafter:	Yes	Basis: 40 CFR60.757(f) and 9 VAC 5-50-50	III.E.5
a.	The maximum value and duration of all exceedences of the operational standards in condition 7;		40 CFR60.757(f)(1)	III.E.5(a)
b.	Description and duration of all periods when the landfill gas stream is diverted through a control system bypass line or periods of indication of control system bypass flow;		40 CFR60.757(f)(2)	III.E.5(b)
c.	Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and the length of time that the control device was not operating;		40 CFR60.757(f)(3)	III.E.5(c)
d.	All periods when the collection system was not operating in excess of five days;		40 CFR60.757(f)(4)	III.E.5(d)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
e.	The location of each exceedence of the 500 ppmv surface methane concentration above background, and the methane concentration recorded at each location for which an exceedence was recorded during the previous month;		40 CFR60.757(f)(5)	III.E.5(e)
f.	The date of installation of each well or collection system expansion added in order to correct exceedences of operational standards in condition 7;		40 CFR60.757(f)(6)	III.E.5(f)
g.	For enclosed combustors (except for boilers and process heaters with a design input heat capacity over 150 MMBtu/hr or greater) all 3 hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test in which compliance with Condition 6 was determined.		40 CFR60.758(c)(1)(i)	III.E.5(g)
h.	For boilers or process heaters used as control systems, any change in the location at which the landfill gas collection system vent stream is introduced into the flame zone.		40 CFR60.758(c)(1)(ii)	III.E.5(h)
29	Reports - Closure. A closure report shall be submitted to the to the Director, Piedmont Region within 30 days of waste acceptance cessation if a landfill gas collection and control system has been installed. Once a closure report has been submitted, no additional wastes may be placed into the landfill without a written notification of the reopening of the landfill.	Yes	Basis: 40 CFR 60.757(d)	III.E.3
30	Reports - Control Equipment Removal. An equipment removal report shall be submitted to the Director, Piedmont Region no later than 30 days prior to removing or ceasing to operate control equipment.	Yes	Basis: 40 CFR 60.757(e)	III.E.4

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
31	Notifications. The permittee shall furnish written notification to the Director, Piedmont Region of:	Yes	Basis: 9 VAC 5-50-50 40 CFR 60.7(a)(6), 60.8(d) and 60.11(e)(1)	III.E.7(d) and (f)
a.	(a. deleted.)	(No)	(No requirements for a, b, and c. Conditions were deleted after copies of notifications were provided to DEQ, fulfilling the conditions.)	
b.	(b. deleted.)	(No)		
c.	(c. deleted.)	(No)		
d.	The anticipated date of performance testing of any installed landfill gas control devices, postmarked not more than 60 days nor less than 30 days prior to such date.	Yes		
e.	The anticipated date of reopening of the MSW landfill (anticipated date of acceptance of additional waste) after a closure report has been submitted, postmarked at least 60 days prior to such date.	Yes		
32	Copies of Reports and Notifications. Copies (one) of the reports and notifications required by [Section E. of] this permit shall be to be sent to: Chief, Technical Assessment Branch (3AP22) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029	Yes	Basis: 40 CFR 60.7(g)	III.E.8
33	Record keeping. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:	Yes	Basis: 9 VAC 5-50-50F	III.C.1
a.	The latest design capacity report, current amount of solid waste-in-place (tons), and the year by year waste acceptance rates (tons).		40 CFR 60.758(a)	III.C.1(a) III.C.1(b)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
b.	Description, location, amount, and placement date of all asbestos-containing or non-degradable waste including asbestos and demolition refuse placed in landfill areas which are excluded from landfill gas estimation.		40 CFR 60.758(d)(2)	III.C.1(d)
c.	Records of all test samples taken for determining all site-specific NMOC concentrations and the methane generation rate constant, sample procedures, calculations and corrections.		9 VAC5-50-50E	III.C.1(e)
d.	Records of all annual calculations of maximum expected gas generation flow rates, VOC and NMOC emission rates.		40 CFR 60.758(b)(1)(i) and 9 VAC 5-50-50F	III.C.1(f)
e.	For any installed landfill gas collection system installed..., the density of wells, gas collectors (horizontal and surface) or other... devices sufficient to achieve comprehensive control of surface gases.		40 CFR 60.758(b)(1)(ii)	III.C.1(g)
f.	For any installed enclosed control devices (other than boilers and process heaters with a design heat capacity greater than 44 megawatts) installed..., the average combustion temperature measured at least every 15 minutes and averaged over the same period as the performance test, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature established during the most recent performance test, and the percent reduction of NMOC achieved by the control device.		40 CFR 60.758(b)(2)(i) and (ii), and (c)(1)(i)	III.C.1(h)
g.	For any installed boiler or process heater with a design heat input capacity of 150 MMBtu/hr and greater used as a... combustion control device and installed...records of operational parameters sufficient to confirm all periods of operation.		40 CFR 60.758(c)(3)	III.C.1(i)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
h.	For any enclosed control devices consisting of process heaters and boilers of any size installed..., a description of the location at which the collected gas stream is introduced into the boiler or process heater over the same time period of the performance testing, and changes to the location at which the gas stream is introduced.		40 CFR60.758(b)(3) and (c)(1)(ii)	III.C.1(j)
i.	For any landfill gas control system installed..., continuous records of the indication of landfill gas flow to the control device, or the indication of bypass flow, or the records of monthly inspections of the bypass line closure locks and seals.		40 CFR 60.758(c)(2)	III.C.1(k)
j.	For any installed open flare control devices installed..., the flare type, all VEE readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test required by 40 CFR 60.18, continuous records of flare pilot flame or flare flame monitoring, and records of all periods of operation in which the flame or flare pilot flame is absent.		40 CFR 60.758(b)(4), (c)(2) and (c)(4)	III.C.1(l)
k.	For any landfill gas collection system installed..., an up-to-date plot map showing each existing and planned gas collector in the landfill gas collection system and providing a unique identification location label for each collector.		40 CFR 60.758(d)	III.C.1(m)
l.	For any landfill gas collection system installed..., up-to-date records of the installation date and location of newly installed collectors.		40 CFR 60.758(d)(1)	III.C.1(n)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
m.	Records of all monitoring data, test results and calibrations necessary to demonstrate compliance with 40 CFR 60..., including but not limited to, malfunctions, operational standard exceedences, and exceedences of parameter boundaries established during the most recent performance test. Records of operational standard exceedences shall include the location of the exceedence and the measurement of that parameter recorded for the subsequent month.		40 CFR 60.758(e)	III.C.2(a-b) III.C.2(c)(ii)
	These records shall be on-site, readily accessible, and available for inspection by the DEQ and shall be current for the most recent five years, and may be retained as either paper or electronic records . Records of control device vendor specifications shall be maintained until removal.		40 CFR 60.758(a and b) 40 CFR 60.758(c)	
34	Closure of a Controlled Landfill. The collection and control system at a controlled landfill may be capped or removed provided that all of the following requirements are met:	Yes	Basis: 40 CFR 60.752(b)(2)(v)	III.A.14
a.	The landfill shall have stopped accepting waste and a closure report shall have been submitted;		40 CFR 60.752(b)(2)(v)(A)	III.A.14(a)
b.	The gas collection and control system shall have been in operation for a minimum of 15 years;		40 CFR 60.752(b)(2)(v)(B)	III.A.14(b)
c.	Following the procedures of 40 CFR 60.754(b), the calculated NMOC gas produced by the landfill shall be less than 50 mega-grams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart; and		40 CFR 60.752(b)(2)(v)(C)	III.A.14(c)
d.	A control equipment removal report containing documentation of items a, b, and c above, shall have been submitted.		40 CFR 60.757(e)	III.A.14(d)

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
35 a. b. c. d.	Permit Revocation. This permit may be modified or revoked in whole or in part for cause, including, but not limited to, the following: Violation of any terms or conditions of this permit; Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; A change in any condition that requires either a temporary or permanent reduction or elimination of a permitted discharge; or Information that the permitted discharge of any pollutant poses a threat to human health, welfare, or the environment.	Yes	9 VAC 5-80-10K(6) and 9 VAC 5-170-160 This permit condition is a standard condition placed in all recent new source review (NSR) permits and is only applicable to NSR permits. In 9 VAC 5-80 Article 1, the Federal Operating Permits regulation, it is replaced by the wording of 9 VAC 5-80-260 A.2 Enforcement, General, which supersedes the NSR wording.	VIII.U and VIII.J.1
36 a. b. c. d.	Inspection. The permittee shall allow authorized local, state and federal representatives, upon the presentation of credentials: To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit; To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations; To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and To sample or test at reasonable times. For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.	Yes	9 VAC 5-80-10K(6) and 9 VAC 5-170-130A This permit condition is a standard condition placed in all recent new source review (NSR) permits and is only applicable to NSR permits. In 9 VAC 5-80 Article 1, the Federal Operating Permits regulation, it is replaced by the wording of 9 VAC 5-80-260 E Inspections and Right of Entry, which supersedes the NSR wording.	VIII.P

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
37	Malfunctions - Shutdown and Reporting. In the event that the landfill gas collection or control system required by conditions 21, 22, or 23 is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to the venting of gas to the atmosphere shall be closed within one hour. If any installed landfill gas collection or control system fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, Piedmont Region within four business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shut down.	Yes	Basis. 40 CFR 60.753(e) 9 VAC 5-20-180C	III.A.12(e) and III.A.13 VIII.F.1
38	Malfunctions - Minimizing Excess Emissions. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall: a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.	Yes	9 VAC 5-170-160	IV.A.4 IV.C.1 IV.A.4

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
39	Operating Procedures. The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.	Yes	Basis: 9 VAC 5-170-180	IV.A.5 IV.C.1
40	Deleted.	No	No requirement. The original condition invalidated the permit if construction was not commenced. It was rendered obsolete when construction was commenced and deleted.	None
41	Change of Ownership. In the event of any change in control of ownership of the permitted source, the permittee shall notify the succeeding owner of the existence of this permit by letter and send a copy of that letter to the Director, Piedmont Region.	Yes	9 VAC 5-170-160	IV.A.6

NSR Permit Condition	Requirement Description	Applicable to Facility?	Comments	Title V Permit Condition
42	Emission Data Requests. Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate your prompt response to requests for information to include, as appropriate: process and production data; changes in control equipment, and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board), and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.		9 VAC 5-20-160 This permit condition is a standard condition placed in all recent new source review (NSR) permits and is only applicable to NSR permits. In 9 VAC 5-80 Article 1, the Federal Operating Permits regulation, it is replaced by the wording of 9 VAC 5-80-110 G.6 Enforcement, which supersedes the NSR wording.	VIII.L.1
43	Permit on Site. A copy of this permit shall be maintained on the premises of the facility to which it applies	Yes	Basis: 9 VAC 5-170-160 This permit condition is a standard condition placed in all recent new source review (NSR) permits and is only applicable to NSR permits. In 9 VAC 5-80 Article 1, the Federal Operating Permits regulation, it is replaced by the wording of 9 VAC 5-80-150 E Action on a Permit Application, which supersedes the NSR wording.	VIII.R

B. Requirements from federal air regulations - Title 40 (Requirements may be abbreviated or paraphrased)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
All Prior to 40 CFR 60	Various	No	No applicable Requirements (Mostly applies to regulatory authorities only).	None
40 CFR 60.1-60.6	60.4 Requirement to provide copies to EPA Region III. No other section contains requirements that are applicable.	Yes	No other requirements for sources.	III.E.8
40 CFR 60.7	Notification and Recordkeeping.			III.E.7
	(a) Written notification to the Administrator shall be provided:	Yes		III.E.7(a)
	(1) of the date of construction/reconstruction is commenced...	Yes		III.E.7(b)
	(2) of the anticipated date of startup...	Yes		III.E.7(c)
	(3) of the actual date of initial startup...	Yes		III.E.7(d)
	(4) of any physical or operational change...	Yes		III.E.7(h)
	(5) of the date that demonstration of CMS performance commences...	No	No CMS requirements	None
	(6) of the anticipated date of opacity observations concurrent with testing...including a request for a VEE reader to be provided.	Yes		III.E.7(f)
	(7) if COMS data will be used to determine compliance in lieu of VEE...	Yes	NSR Permit is more restrictive. Not provided.	None
	(b) Records will be maintained of startups, shutdowns or malfunctions of the affected facility, or of any malfunction of the related air pollution control equipment, or of any periods during which a CMS or monitoring device is inoperative.	Yes		III.C.1(p)
	(c) Excess emissions and monitoring systems performance report and/or a summary report form shall be submitted semiannually for any CMS required to be installed, or more frequently when... and shall include specific information (1) - (4).	No	Specified in the applicable Subpart WWW as annual instead, and what info is required instead.	III.E.5

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(d) The summary report form shall contain the information and be in the form of Figure 1 unless otherwise specified, one form for each pollutant monitored following the directions of (1) and (2).	No	Specified in the applicable Subpart WWW as to what info is required instead.	III.E.5
	(e) If applicable subparts require more frequent excess emission or summary reports, the frequency may be reduced by (i) - (iii). The frequency of the reports may be reduced only after notifying the Administrator. As soon as the data indicates noncompliance with any standard, the frequency reverts to the applicable subpart requirement.	No		None
	(f) Files shall be maintained for two years of all monitoring system or device measurements, evaluations, calibration checks, adjustments and maintenance in a permanent form suitable for inspection.	Yes	Permit is more restrictive, (5 yrs) and subsumes this requirement.	III.C.2(c)
	(g) If notification substantially similar to paragraph (a) is required by the state agency, a copy to the Administrator will satisfy the paragraph(a) requirements.	Yes		
	(h) Individual subparts may clarify or make requirements inapplicable.	Yes	see (c), (d) and (e)	as above
40 CFR 60.8	Performance Tests (a) Conduct tests within 60 days of reaching maximum production rate, but not later than 180 days after startup, and at such other times as required. Submit a written report to the Administrator.	Yes		III.D.4(a)
	(b) Conduct tests and reduce data as required in the subpart, unless deviations are approved or requirements waived by the Administrator.	Yes	If deviations are approved permit will be changed.	III.D.4(b)
	(c) Conduct tests under conditions specified by the Administrator based on representative performance. The operator as necessary to determine... will provide records Operations during startup, shutdown or malfunction shall not be representative for test purposes, nor shall excess emissions during these periods be violations of the standard unless specified otherwise in the subpart (WWW).	Yes		III.D.4(c)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(d) Provide the Administrator at least 30 days notice prior to testing... (e) The owner shall provide sampling ports, a safe sampling platform, safe access to the platform, and utilities. (f) The test shall consist of three separate runs using the test methods, and the arithmetic mean shall be applied. If accidents beyond the control of the operator interfere, compliance may be determined by the arithmetic mean of two runs, with the Administrator's approval.	Yes Yes Yes		III.D.4(d) III.D.4(f) III.D.4(e)
40 CFR 60.9 and 10	Availability of Information and State Authority	No	No requirements	None
40 CFR 60.11	Compliance with Standards and Maintenance Requirements (a) Compliance with standards other than opacity shall be determined by performance tests in accordance with 60.8. (b) Compliance with opacity standards shall be determined by Ref. Method 9 except for approved alternatives and COMS in lieu of Method 9. The initial compliance test shall be 3 hours (30-6 min averages). (c) The opacity standard shall apply at all times, except during startup, shutdown and malfunction. (d) Operators shall maintain and operate the facility and control equipment consistent with good air pollution practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used is based on information available to the Administrator. (1) Opacity observations shall be conducted concurrently with initial performance tests except, if prevented, as soon as possible and not later than 30 days thereafter, and under the same conditions.... Opacity readings of portions of plumes that contain ...water vapor shall not be used. The owner shall make such records available as necessary to determine the conditions under which the VEE was made	Yes Yes Yes Yes Yes (parts)	60.8 is included in permit, and the methods are prescribed in WWW. Ref Method 22 prescribed for open flare. Others get Method 9. No COMS. Parts referring to VEEs without performance tests, and COMS results being probative do not apply since a COMS will not be used in lieu of VEEs. Cautions pertaining to	III.D.4(g)&(i) III.D.5(b)&(c) III.A.2 and 3 VIII.O III.D.5(a, d & e), and attached App. A (report format).

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	and provide evidence of current certification of the reader. The results of COMs are probative but not conclusive evidence that opacity is not in excess of the standard unless the source can prove that at the time of the violation: the instrument meets Spec. 1 of App B, was properly maintained and the data have not been altered in any way.		water vapor duplicate 2.3.1 of Method 9 which is included by reference.	
	(2) Results shall be reported along with the results of the performance test. Lack of a VEE observer isn't a valid reason for not conducting VEE concurrently.	Yes		III.D.5(e)
	(3) The owner may request the Administrator to provide the VEE observer, if included with the testing notification of 60.8, but if the Administrator cannot provide one, the lack is not a valid reason for not conducting VEE concurrent with the performance test.	Yes	This statement is permissive, but not a requirement and (e)(1) still applies.	None
	(4) An owner using a transmissometer shall record the monitoring data produced during the performance test and provide it with the test report.	Yes		III.D.5(b)
	(5) An owner may use COMs data in lieu of VEE observations to determine compliance with the standard during the test...with 30 days notice....	Yes	Permissive, but not a requirement. Permit is more restrictive, and does not provide for this.	None
	(6)Upon receipt of the test results, the Administrator will make a finding of compliance. If the Administrator finds the test results demonstrate compliance, but the opacity during the test failed to meet the standard, the Administrator shall notify the owner that he has 10 days to petition for an adjustment of the standard.	No	Not a requirement of the facility. Applies to regulators only.	None
	(7) The administrator will grant the petition under certain conditions.	No	Not a requirement of the facility, only regulators.	None
	(8) If the petition is approved the Administrator will set a new standard which the facility will be able to meet if operated properly.	No	Not a requirement of the facility, only regulators.	None
40 CFR 60.12	Circumvention. No owner shall install or use any device that conceals an emission that would otherwise be a violation of a standard...	Yes	Subsumed by regulation (9 VAC 5-20-70)	IV.A.7

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.13	Monitoring. (a) All continuous monitoring systems required under any applicable subparts shall comply with Appendix B specifications, and those used for direct compliance shall comply with Appendix F. (b) All Continuous Monitoring Systems (CMS) and monitoring devices shall be installed and operational prior to performance testing. Verification shall meet minimum requirements, including the manufacturer's recommendations for installation, operation & calibration. (c) If the owner elect to use COMS in lieu of VEE... (d)(1) Owners of CEMS shall perform certain checks... (2) Owners of COMS shall perform minimum procedures... (e) Except for breakdowns, repairs or calibration checks/adjustments, all COMS, CEMS and continuous monitoring devices shall be in continuous operation...(COMS & CEMS have additional requirements). (f) all CMS or monitoring devices must be located such that representative measurements of process parameters shall be obtained. CEMS and COMS have additional procedures in Appendix B, subpart A. (g) CASS may be installed on each effluent stream or on the combined stream (if combined). (h) Owner of facilities using COMS shall reduce the data to 6 min averages and data during breakdowns shall not be used. (i) The Administrator may approve alternatives to monitoring procedures. (j) Alternatives to Specification 2 of Appendix B may be requested	No Yes No No No Yes Yes No No No No	No COMS or CEMS required under any applicable subpart. Subsumed by regulation (9 VAC 5-50-40 and NSR permit Cond. 15 Not allowed by permit. No CEMS required. No COMS required. Only device requirements are applicable. No COMS or CEMS are required. Applicable to devices only, by manufacturer recommendations. Permissive not required. Permit is more restrictive. No COMS required, and no COMS in lieu of VEE. Applicable to regulator. Spec 2 is not applicable.	None IV.B.1 None None None III.B.5 and 6 III.B.5 and 6 None None None None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.14 & 15	Modification (14) and Reconstruction (15)	No	Facility is already subject to the applicable subparts. No other requirements.	None
40 CFR 60.16 & 17	Priority List (16) and Incorporated by reference.	No	No Requirements	None
40 CFR 60.18	General Device Requirements		The following requirements are only applicable if a flare is installed as a landfill gas control device.	
	(a) Introduction	Yes	No requirements	None
	(b) Flares	Yes	No requirements	None
	(c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.	Yes		III.A.2
	(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).	Yes		III.A.11(a)
	(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.	Yes		III.A.11
	(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are non-assisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, Vmax, as determined by an equation...	Yes		III.A.11(c)(i)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.	Yes		III.D.4(i)
	(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.	Yes		III.A.11(c)(ii), (d)(i), and (e)(i)
	(4)(i) Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4)(ii) and (iii) of this section.	Yes		III.A.11(c)(ii), (d)(i), and (e)(i)
	(ii) Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).	Yes		III.A.11(c)(iv) and (d)(iii)
	(iii) Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, Vmax, as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.	Yes		III.A.11(c)(iii) and (d)(ii)
	(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in paragraph (f)(6).	Yes		III.A.11(e)(ii)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or non-assisted.	Yes	The requirements of the applicable subparts are included in the permit condition.	III.A.11(b)
	(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.	Yes		III.B.5
	(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.	Yes		III.A.11(f)
	(f)(1) Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.	Yes		III.D.5(c)
	(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	Yes		III.B.5(a)
	(3) The net heating value of the gas being combusted in a flare shall be calculated using an equation for Ht...	Yes		III.A.11(g)
	(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.	Yes		III.D.4(i)
	(5) The maximum permitted velocity, Vmax, for flares complying with paragraph (c)(4)(iii) shall be determined by an equation...	Yes		III.A.11 (c)(iii)(2) and (d)(ii)(2)
	(6) The maximum permitted velocity, Vmax, for air-assisted flares shall be determined by an equation...	Yes		III.A.11(e)(ii)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.19	General notification and reporting requirements	No	No requirements applicable to facility. Contains only definition requirements applicable to regulators.	None
40 CFR 60.20 to 40 CFR 60.115a	Various	No	No applicable requirements.	None
40.CFR 60.110b	Applicability (a) Each storage vessel with a capacity greater than 40m^3 constructed after July 23, 1984 and used to contain Volatile Organic Liquids. (b) Vessels with a capacity less than 75m^3 are exempt except for 116b record keeping requirements. (c) Vessels with a capacity greater than or equal to 151m^3 but with a maximum true vapor pressure (MTVP) less than 3.5 kPa are exempt except for 116b monitoring requirements. Vessels with capacities between 75m^3 and 151m^3 are also exempt if the MTVP is less than 15kPa.	Yes No Yes	No requirements in this section.	None None None
40.CFR 60.111b to 40 CFR 60.116b	Definitions, Standards, Testing, Alternative Limits, Recordkeeping	No	Each leachate tank has a capacity of 513 m^3 was constructed after 1984. However, they contain a liquid that has only a small fraction of VOC. The MTVP is less than 2.5 kPA. They are therefore exempt from all Subpart A requirements and all Kb requirements except 116b, according to 60.110b(c).	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.116b	(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.	Yes		III.C.2(c)(iii)
	(b)The owner or operator of each storage vessel as specified in Sec. 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m^3 (2,649 cu.ft. or approx. 19,813 gal.) is subject to no provision of this subpart other than those required by this paragraph.	Yes		III.C.1(o)
	(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 (5,333 cu.ft. or approx. 39,890 gal.) storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa (0.5 psi) or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa (2.18 psi) shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.	No	Capacity is greater than 151m^3, but MTVP is less than 3,5 kPa (actually less than 2.5 kPa).	
	(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 (5,333 cu.ft. or approx. 39,890 gal.) storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa (0.75 psi) or with a design capacity greater than or equal to 75 m^3 (2,649 cu.ft. or approx. 19,813 gal.) but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa (4.0 psi) shall notify the Administrator within 30 days when the maximum true vapor	Yes	Capacity is greater than 151m^3 and MTVP normally less than 5.2 kPa.	III.E.7(i)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.			
	(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.	Yes	Operated at ambient temperatures.	III.E.7(i)
	(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.	Yes No	Petroleum only Petroleum only	
	(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:	No		
	(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).	No	Petroleum only	
	(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psi) or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa (0.5 psi).		Leachate, mostly water, and trace VOC/HAP contaminants.	III.E.7(i) (i and ii)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(3) For other liquids, the vapor pressure: (i) May be obtained from standard reference texts, or	Yes	None Approved.	III.E.7(i)(iii)
	(ii) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or	Yes	None Approved.	III.E.7(i)(iv)
	(iii) Measured by an appropriate method approved by the Administrator (Ed. note: Not delegated), or		No requirement, but leachate is a mixture of variable composition.	None
	(iv) Calculated by an appropriate method approved by the Administrator (Ed. note: Not delegated).	Yes	Obsolete requirement. Already determined using EPA TANKS 3.1 model (see application)	None
	(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.	Yes		
	(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.	Yes	The anticipated MTVP is below the cutoff for monitoring (151m^3 and 3.5 kPa)	None
	(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in Sec. 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods: (i) ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or (ii) ASTM Method D323-82 (incorporated by reference--see Sec. 60.17); or (iii) As measured by an appropriate method as approved by the Administrator.	No	Open vent.	None
	(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specifications of Sec. 60.112b is exempt from the requirements of paragraphs (c) and (d) of this section.	No		

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.117b	Delegation of Authority	No	No requirements	None
40 CFR 60.120 to 40 CFR 60.750	Various	No	No applicable requirements.	None
40 CFR 60.750 Applicability	(a)The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section. (b) Authority for Sec 60.754(a)(5) is not delegated to the State. (c) Activities... conducted pursuant to a... remedial action are not considered construction, reconstruction, or modification....	Yes	Constructed after May 30, 1991. But contains no requirements.	None
40 CFR 60.751 Definitions	Definitions	Yes	No requirements.	None.
40 CFR 60.752 Standards	Standards (a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million mega-grams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in Sec. 60.757(a). The landfill may calculate design capacity in either mega-grams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.	No	Obsolete requirement. This source was originally constructed as greater than 2.5 million cubic meters in 1994 and submitted the initial design capacity report on June 6, 1996, regardless of the applicability of the requirement.	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in Sec. 60.757(a)(3). (2) When an increase in the maximum design capacity of a landfill exempted from the provisions of Sec. 60.752(b) through Sec. 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million mega-grams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section. (b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million mega-grams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in Sec. 60.754. The NMOC emission rate shall be recalculated annually, except as provided in Sec. 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million mega-grams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements. (1) If the calculated NMOC emission rate is less than 50 mega-grams per year, the owner or operator shall: (i) Submit an annual emission report to the Administrator, except as provided for in Sec. 60.757(b)(1)(ii); and (ii) Recalculate the NMOC emission rate annually using the procedures specified in Sec. 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 mega-grams per year, or the landfill is closed.	Yes	Subsumed by Conditions 18, 21, 22, and 23 of the NSR permit, but reworded for the proposed T5 permit.	III.A.4(a)&(b)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 mega-grams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section. (B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in Sec. 60.757(d).			
	(2) If the calculated NMOC emission rate is equal to or greater than 50 mega-grams per year, the owner or operator shall:	Yes	40 CFR 60.757 limits this report requirement to the closure of a controlled landfill.	III.E.3
	(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:	Yes	Subsumed by Conditions 18, 21, 22, 23 and 24 of the NSR permit.	III.A.4
	(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.	Yes	Reworded for the proposed T5 permit.	III.A.4(a)(i) & III.A.5(a)
	(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Secs. 60.753 through 60.758 proposed by the owner or operator.	Yes		III.A.5(b)
	(C) The collection and control system design plan shall either conform with specifications for active collection systems in Sec. 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to Sec. 60.759.	Yes		III.A.5(e)
	(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A),(B) and (C) of this section and either approve it,	Yes		III.A.5(f)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.	No	Applicable to regulators only.	None
	(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 mega-grams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 mega-grams per year, as specified in Sec. 60.757(c)(1) or (2).	Yes	Subsumed by Conditions 18, 21, 22, 23 and 24 of the NSR permit. Reworded for the proposed T5 permit.	III.A.5(a)(i) Through (v)
	(A) An active collection system shall: (*1*) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;	Yes	Subsumed by condition 5.(a)(i) through(v) of the NSR permit. Reworded for the proposed T5 permit.	III.A.6(a)
	(*2*) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of: (i) 5 years or more if active; or (*ii*) 2 years or more if closed or at final grade;	Yes		III.A.6(b)
	(*3*) Collect gas at a sufficient extraction rate;			III.A.7
	(*4*) Be designed to minimize off-site migration of subsurface gas.	Yes Yes		III.A.6(c)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(B) A passive collection system shall: (*1*) Comply with the provisions specified in paragraphs (b)(2)(ii), (A)(1), (2), and (4) of this section.	Yes	Subsumed by condition 5.(b) of the NSR permit. Reworded for the proposed T5 permit.	III.A.9
	(*2*) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40 of this title.	Yes		III.A.9
	(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (c) of this section.	Yes	Subsumed by Condition 6 of the NSR permit. Reworded for the proposed T5 permit.	III.A.4(a)(iv)
	(A) An open flare designed and operated in accordance with Sec. 60.18;	Yes		III.A.10(a)
	(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in Sec. 60.754(d).	Yes	Subsumed by Condition 19 of the NSR permit. Reworded for the proposed T5 permit.	III.A.10(b),(c), and (d) III.D.4(a)
	(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.	Yes	Subsumed by Condition 6 of the NSR permit. Reworded for the proposed T5 permit.	III.A.10(e)
	(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of Secs. 60.753, 60.755 and 60.756.	Yes		III.A.12 & III.A.13

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (c) of this section are met:	Yes	Subsumed by Condition 34 of the NSR permit. Reworded for the proposed T5 permit.	III.A.14
	(A) The landfill shall be a closed landfill as defined in Sec. 60.751 of this subpart. A closure report shall be submitted... as provided in Sec. 60.757(d);	Yes		III.A.14(a)
	(B) The collection and control system shall have been in operation a minimum of 15 years; and	Yes	Subsumed by Condition 34 of the NSR permit.	III.A.14(b)
	(C) Following the procedures specified in Sec. 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 mega-grams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.	Yes	Reworded for the proposed T5 permit.	III.A.14(c)
	(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million mega-grams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million mega-grams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of Secs. 70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than: (1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;	Yes	Obsolete requirement. BFI has already become subject to T5 and has submitted a T5 application in accordance with Part 70	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996. (d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met: (1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or (2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.	Yes	Permissive, but not a requirement.	None
40 CFR 60.753 Operation Stds	Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of Sec. 60.752(b)(2)(ii) of this subpart shall: (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: (1) 5 years or more if active; or (2) 2 years or more if closed or at final grade; (b) Operate the collection system with negative pressure at each wellhead except under the following conditions: (1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in Sec. 60.757(f)(1); (2) Use of a geo-membrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;	Yes Yes Yes	Subsumed by Condition 7 of the NSR permit. Reworded for the proposed T5 permit.	III.A.12 III.A.12(d) III.A.12(a)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;			
	(c)Operate each interior wellhead in the collection system with a landfill gas temperature less than 55ºC and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.	Yes		III.A.12(b)
	(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by Sec. 60.752(b)(2)(i) of this subpart.	Yes	Subsumed by Condition 16 of the NSR permit. Reworded for the proposed T5 permit.	III.D.10
	(2) Unless an alternative test method is established as allowed by Sec. 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A except that:	Yes		III.D.11
	(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;			
	(ii) A data recorder is not required;			
	(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;			
	(iv) A calibration error check is not required;			
	(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.			
	(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated	Yes	Subsumed by Condition 7(c) of the NSR permit. Reworded for the proposed T5 permit.	III.B.2(a)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.			
	(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Sec. 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and	Yes	Subsumed by Condition 7(d) of the NSR permit. Reworded for the proposed T5 permit.	III.A.12(e)
	(f) Operate the control or treatment system at all times when the collected gas is routed to the system.	Yes	Duplicated by Condition 8 of the NSR permit. Reworded for the proposed T5 permit.	III.A.13
	(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in Sec. 60.755(a)(3) through (5) or Sec. 60.755(c) of this subpart. If corrective actions are taken as specified in Sec. 60.755, the monitored exceedance is not a violation of the operational requirements in this section.	Yes	Duplicated by Condition 17 of the NSR permit. Reworded for the proposed T5 permit.	III.B.13
40 CFR 60.754 Test Methods	(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is	Yes	Subsumed by Condition 18 of the NSR permit. Reworded for the proposed T5 permit.	III.D.1

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per mega-gram for L_0, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.			
	(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known....	Yes		III.D.1(a)
	(ii)The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown... The mass of non-degradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.	Yes		III.D.1(b)
	(2) *Tier 1*. The owner... shall compare the calculated NMOC mass emission rate to the standard of 50 mega-grams/year.	No	Obsolete requirement. BFI has already demonstrated less than 50 mega-grams using Tier 2.	None
	(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 mega-grams per year, then the landfill owner shall submit an emission rate report as provided in Sec. 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under Sec. 60.752(b)(1).			
	(ii) If the calculated NMOC emission rate is equal to or greater than 50 mega-grams per year, then the landfill owner shall either comply with Sec. 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.	No	Obsolete requirement. BFI has already demonstrated less than 50 mega-grams using Tier 2.	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(3) *Tier 2*. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of non-degradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C of appendix A of this part or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.	Yes	Subsumed by Condition 18 of the NSR permit. Reworded for the proposed T5 permit.	III.D.6
	(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.	Yes	Subsumed by Condition 22 of the NSR permit. Reworded for the proposed T5 permit.	III.A.4
	(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 mega-grams per year, then the landfill owner shall either comply with Sec. 60.752(b)(2), or determine the site- specific methane generation rate constant and recalculate the NMOC emission rate	Yes		III.A.4(a)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	using the methane generation rate using the procedure specified in paragraph (a)(4). (iii) If the resulting NMOC mass emission rate is less than 50 mega-grams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in Sec. 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.	Yes	Subsumed by Condition 27 of the NSR permit. Reworded for the proposed T5 permit.	III.A.4(b) III.D.2(c)
	(4) *Tier 3*. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 mega-grams per year.	Yes	Subsumed by Condition 18 of the NSR permit. Reworded for the proposed T5 permit.	III.D.3 and 7
	(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 mega-grams per year, the owner or operator shall comply with Sec. 60.752(b)(2).	Yes	Duplicated by Condition 23 of the NSR permit. Reworded for the proposed T5 permit.	III.A.4(a)
	(ii) If the NMOC mass emission rate is less than 50 mega-grams per year, then the owner or operator shall submit a periodic emission rate report as provided in Sec. 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in Sec. 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this	Yes Yes	Duplicated by Condition 27 of the NSR permit. Reworded for the proposed T5 permit.	III.A.4(b) III.A.4(b) III.D.3(a)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.			
	(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) if the method has been approved by the Administrator.	Yes		III.D.6&7
	(b) After the installation of a collection and control system in compliance with Sec. 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Sec. 60.752(b)(2)(v), using the equation, Mnmoc=...	Yes	Subsumed by Condition 34(c) of the NSR permit. Reworded for the proposed T5 permit.	III.D.9(a)
	(1) The flow rate of landfill gas, Q_{LFG}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.	Yes		III.D.9(b)
	(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.	Yes	Subsumed by Condition 34(c) of the NSR permit. Reworded for the proposed T5 permit.	III.D.9(c)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator. (c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in Secs. 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures. (d) For the performance test required in Sec. 60.752(b)(2)(iii)(B), Method 25C or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by Sec. 60.752(b)(2)(i)(B). If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency: Control Efficiency = ($NMOC_{in}$ - $NMOC_{out}$) / ($NMOC_{in}$) where, $NMOC_{in}$ = mass of NMOC entering control device $NMOC_{out}$ = mass of NMOC exiting control device	Yes Yes Yes	Obsolete requirement. The PSD evaluation has already been made for the NSR permit, based upon this method. This requirement is subsumed by Condition 19 of the NSR permit. Reworded for the proposed T5 permit. The NSR permit is more restrictive and requires Method 25C. .	III.D.9(d) None III.D.4(g)&(h)
40 CFR 60.755 Compliance	(a) Except as provided in Sec. 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine if the gas collection system is in compliance. (1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Sec. 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors	Yes Yes	This requirement is contained in Conditions 16 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.D.8 III.D.8

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in Sec. 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.			
	(i) For sites with unknown year-to-year solid waste acceptance rate, the formula Qm=....	Yes		III.D.8(a)
	(ii) For sites with known year-to-year solid waste acceptance rate, the formula Qm=...	Yes		III.D.8(b)
	(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii)... shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.	Yes		III.D.8(c)
	(2) For the purposes of determining sufficient density of gas collectors for compliance with Sec. 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.	Yes	This requirement is contained in Conditions 16, 17 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.A.6(b)
	(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Sec. 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas	Yes		III.B.3(b), (c), (d) and (e)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Sec. 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedance of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.	Yes		III.B.3(d)(i)
	(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.	Yes	These requirements are contained in Conditions 16, 17 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.B.4(b), (c), (d), (e) & (f)
	(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Sec. 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.	Yes	These requirements are contained in Conditions 16, 17 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.A.5(f)
	(6) An owner or operator seeking to demonstrate compliance with Sec. 60.752(b)(2)(ii)(A)(4) through the			

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	use of a collection system not conforming to the specifications provided in Sec. 60.759 shall provide information satisfactory to the Administrator as specified in Sec. 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.	Yes		
	(b) For purposes of compliance with Sec. 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in Sec. 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:			III.A.6(b)
	(1) 5 years or more if active; or	Yes		
	(2) 2 years or more if closed or at final grade.			
	(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in Sec. 60.753(d).	Yes	These requirements are contained in Conditions 16, 17 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.B.2
	(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.			III.B.2(a)
	(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.	Yes		III.B.2(c)
	(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.	Yes		III.B.2(d) & (e)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Sec. 60.753(d).	Yes		III.B.2(f)
	(i) The location of each monitored exceedance shall be marked and the location recorded.	Yes		III.B.2(f)(i)
	(ii) Cover maintenance or adjustments to the vacuum of the wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detection.	Yes	These requirements are contained in Conditions 16, 17 and 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.B.2(f)(ii)
	(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.	Yes		III.B.2(f)(iii)
	(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions in paragraph (c)(4) (iii) or (v) shall be taken.	Yes		III.B.2(f)(iv)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower... and a timeline for installation may be submitted to the Administrator for approval.	Yes		III.B.2(f)(v)
	(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.	Yes	This requirement is contained in Condition 10 of the NSR permit. The more detailed CFR wording (paraphrased) is used for the proposed T5 permit.	III.B.2(h)
	(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:	Yes		III.B.2(b)
	(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that ``methane'' shall replace all references to VOC.	Yes		III.B.2(b)(i)
	(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.	Yes		III.B.2(b)(ii)
	(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.	Yes		III.B.2(b)(iii)
	(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.	Yes		III.B.2(b)(iv)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.	Yes		III.A.15
40 CFR 60.756 Monitoring	Except as provided in Sec. 60.752(b)(2)(i)(B), (a) Each owner or operator seeking to comply with Sec. 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer other temperature measuring device, or an access port for temperature measurements at each wellhead, and:	Yes	These requirements are contained in Conditions 14 and 16 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.B.3(a) III.B.4(a)
	(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in Sec. 60.755(a)(3); and	Yes		III.B.3(b)
	(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Sec. 60.755(a)(5); and	Yes		III.B.4(c)
	(3) Monitor temperature of the landfill gas on a monthly basis as provided in Sec. 60.755(a)(5).	Yes		III.B.4(b)
	(b) Each owner or operator seeking to comply with Sec. 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.	Yes		III.B.6
	(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5°C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.	Yes		III.B.6(a)
	(2) A device that records flow to or bypass of the control device. The owner or operator shall either:	Yes		III.B.6(b)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or	Yes		III.B.6(b)(i)
	(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.	Yes	These requirements are contained in Conditions 14 and 16 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit.	III.B.6(b)(ii)
	(c) Each owner or operator seeking to comply with Sec. 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:	Yes		III.B.5
	(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.	Yes		III.B.5(a)
	(2) A device that records flow to or bypass of the flare. The owner or operator shall either:	Yes		III.B.5(b)
	(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or	Yes		III.B.5(b)(i)
	(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.	Yes		III.B.5(b)(ii)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(d) Each owner or operator seeking to demonstrate compliance with Sec. 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in Sec. 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.	Yes	These requirements are contained in Condition 24 of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit	III.B.7
	(e) Each owner or operator seeking to install a collection system that does not meet the specifications in Sec. 60.759 or seeking to monitor alternative parameters to those required by Sec. 60.753 through Sec. 60.756 shall provide information satisfactory to the Administrator as provided in Sec. 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.	Yes		III.B.8
	(f) Each owner or operator seeking to demonstrate compliance with Sec. 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Sec. 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.	Yes Yes	This requirement is contained in Condition 16(g) of the NSR permit. The paraphrased CFR wording is used for the proposed T5 permit	III.B.2 III.B.2(g)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 60.757 Reporting	Except as provided in Sec. 60.752(b)(2)(i)(B), (a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator. (1) The initial ... report shall fulfill the requirements of the notification of the date construction is commenced as required by Sec. 60.7(a)(1) and shall be submitted no later than: (i) June 10, 1996, for landfills that commenced construction... on or after 5\30\91 but before 3\12\96 or (ii) Ninety days after the date of commenced construction... for landfills that commence construction, modification, or reconstruction on or after 3\12\96. (2) The initial ... report shall contain the following information: (i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the ... local agency responsible for regulating the landfill. (ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the... local agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The ... local agency or Administrator may request other reasonable information as may be	Yes	Obsolete requirement. BFI completed this requirement by submitting an inital report dated June 6, 1996	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	necessary to verify the maximum design capacity of the landfill.			
	(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in Sec. 60.758(f).	No	This requirement applies only to landfills of a capacity less than 2.5 million megagrams.	None
	(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.	Yes	These requirements are contained in Conditions 26 and 27 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.1
	(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula... provided in Sec. 60.754(a) or (b), as applicable.	Yes		III.E.1(a)
	(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.	Yes..	The requirement for an initial report is obsolete. An initial NMOC (5-year) emission rate report was submitted to EPA dated June 12, 1996.	None
	(A) 6\10\96, for landfills that commenced construction... on or after 5\30\91, but before 3\12\96, or			

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(B) Ninety days after the date of commenced construction... for landfills that commence construction ... on or after 3\12\96.			
	(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 mega-grams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.	Yes	These requirements are contained in Conditions 26 and 27 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.1(a)(ii)
	(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.	Yes		III.E.1(b)
	(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with Sec. 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with Secs. 60.753 and 60.755.	Yes		III.E.1(c)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(c) Each owner or operator subject to the provisions of Sec. 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:	Yes	These requirements are contained in Conditions 21, 22 and 23 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.2
	(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in Sec. 60.754(a)(3) and the resulting rate is less than 50 mega-grams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 mega-grams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 mega-grams per year.	Yes		III.E.2(a)
	(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in Sec. 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of Sec. 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 mega-grams per year.	Yes		III.E.2(b)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.	Yes	These requirements are contained in Condition 30 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.4
	(1) The ... removal report shall contain all of the following:	Yes		III.E.4
	(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;	Yes		III.E.4(a)
	(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and	Yes		III.E.4(b)
	(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 mega-grams or greater of NMOC per year.	Yes		III.E.4(c)
	(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in Sec. 60.752(b)(2)(v) have been met.	Yes		III.E.4
	(f) Each owner... seeking to comply with Sec. 60.752(b)(2) using an active collection system designed in accordance with Sec. 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) - (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under Sec. 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under Sec. 60.758(c).	Yes	These requirements are contained in Condition 28 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.5
	(1) Value and length of time for exceedance of applicable parameters monitored under Sec. 60.756(a-d).			III.E.5(a) III.E.5(b)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under Sec. 60.756.	Yes	These requirements are contained in Condition 28 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.5(c)
	(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.	Yes		III.E.5(d)
	(4) All periods when the collection system was not operating in excess of 5 days.	Yes		III.E.5(e)
	(5) The location of each exceedance of the 500 parts per million methane concentration as provided in Sec. 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.	Yes	These requirements are contained in Condition 19 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.5(f)
	(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of Sec. 60.755.	Yes		III.E.6
	(g) Each owner or operator seeking to comply with Sec. 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under Sec. 60.8:	Yes		III.E.6(a)
	(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;	Yes		III.E.6(b)
	(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;	Yes		III.E.6(c)
	(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the	Yes	These requirements are contained in Condition 19 of the NSR permit. The	III.E.6(d)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	presence of asbestos or non-degradable material; (4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area; and (5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and (6) The provisions for the control of off-site migration.	Yes Yes Yes	CFR wording (paraphrased) is used for the proposed T5 permit.	III.E.6(e) III.E.6(f)
40 CFR 60.758 Recordkeeping	(a) Except as provided in Sec. 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of Sec. 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered Sec. 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. (b) Except as provided in Sec. 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. (1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Sec. 60.752(b)(2)(ii):	Yes Yes	These requirements are contained in Condition 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit. The original design capacity report triggered the NSPS applicability for this facility.	III.C.1(a) and III.C.2 III.C.2

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(i) The maximum expected gas generation flow rate as calculated in Sec. 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.	Yes		III.C.1(e)
	(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Sec. 60.759(a)(1).	Yes		III.C.1(f)
	(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Sec. 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:	Yes	These requirements are contained in Condition 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.C.1(g)
	(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.	Yes		III.C.1(g)
	(ii) The percent reduction of NMOC determined as specified in Sec. 60.752(b)(2)(iii)(B) achieved by the control device.	Yes		III.C.1(g)
	(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Sec. 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.	Yes		III.C.1(i)
	(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with Sec. 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made	Yes		III.C.1(k)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	during the performance test as specified in Sec. 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.			
	(c) Except as provided in Sec. 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Sec. 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.	Yes	These requirements are contained in Conditions 28 and 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.C.2 and III.C.1(n)
	(1) The following constitute exceedances that shall be recorded and reported under Sec. 60.757(f):	Yes		III.E.5 and III.C.1
	(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with Sec. 60.752(b)(2)(iii) was determined.	Yes		III.E.5(g) and III.C.1(h)
	(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3)(i) of this section.	Yes		III.E.5(h) and III.C.1(i)
	(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under	Yes	This requirement is contained in Condition 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.C.1(j)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	Sec. 60.756. (3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with Sec. 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of... monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)	Yes	These requirements are contained in Condition 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.C.1(h)
	(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Sec. 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.	Yes		III.C.1(k)
	(d) Except as provided in Sec. 60.752(b)(2)(i)(B), each owner... subject to this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.	Yes		III.C.1(l)
	(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Sec. 60.755(b).	Yes		III.C.1(m)
	(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in Sec. 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in Sec. 60.759(a)(3)(ii).	Yes		III.C.1(b) & (c)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	(e) Except as provided in Sec. 60.752(b)(2)(i)(B), each owner... subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all ... system exceedances of the operational standards in Sec. 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. (f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million mega-grams or 2.5 million cubic meters, as provided in the definition of ``design capacity'', shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.	Yes No	These requirements are contained in Condition 33 of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit. This facility was originally designed to be greater than 2.5 million megagrams in size.	III.C.1(n) None
40 CFR 60.759 Specifications for Active Collection Systems	(a) Each owner or operator seeking to comply with 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in 60.752(b)(2)(i)(C) and (D): (1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement,	Yes Yes	These requirements are contained in Condition 5(a) of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.A.8(a) III.A.8(a)(i)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	and resistance to the refuse decomposition heat. (2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.	Yes		III.A.8(a)(ii)
	(3) The placement of gas collection devices determined in paragraph (a)(1)... shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii)...	Yes		III.A.8(a)(iii)
	(i) Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or non-degradable material deposited in the area, and shall be provided to the Administrator upon request.	Yes		III.A.8(a)(iii) (1)
	(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the equation Qi=...	Yes	These requirements are contained in Condition 5(a) of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.A.8(a)(iii) (2)
	(iii) The values for k and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor			

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	approaches zero). If field testing has not been performed, the default values for k, L_0 and C_{NMOC} provided in 60.754(a)(1) or the alternative values from 60.754(a)(5) shall be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the non-degradable material is documented as provided in paragraph (a)(3)(i)of this section.	Yes		III.A.8(a)(iii) (3)
	(b) Each owner or operator seeking to comply with 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:	Yes	These requirements are contained in Condition 5(a) of the NSR permit.	III.A.8(b)
	(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.	Yes	The CFR wording (paraphrased) is used for the proposed T5 permit.	III.A.8(b)(i)
	(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow	Yes		III.A.8(b)(ii)

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
	indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations. (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. (c) Each owner or operator seeking to comply with 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures: (1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used. (2) For new collection systems, the maximum flow rate shall be in accordance with 60.755(a)(1).	Yes Yes Yes Yes	These requirements are contained in Condition 5(a) of the NSR permit. The CFR wording (paraphrased) is used for the proposed T5 permit.	III.A.8(b)(iii) III.A.8(c) III.D.8(c) III.D.8(a) & (b)
40 CFR 60.760 to 40 CFR 61.1	Various	No	Not Applicable	None
40 CFR 61.01	List of Pollutants and Applicability	Yes	No Requirements	None
40 CFR 61.02	Definitions	Yes	No Requirements	None
40 CFR 61.03	Units and Abbreviations	Yes	No Requirements	None
40 CFR 61.04	Address	Yes	All requirements are Applicable.	VIII.AA

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 61.05	Prohibited Activities	Yes	All requirements are applicable.	VIII.AA
40 CFR 61.06	Determination of Construction or Modification	Yes	Permissive only. No requirements.	None
40 CFR 61.07	Application for Approval of Construction or Modification	Yes	All requirements are applicable.	VIII.AA
40 CFR 61.08	Approval of Construction or Modification	Yes	No requirements (Regulatory authorities).	None
40 CFR 61.09	Notification of startup	Yes	All requirements are applicable.	VIII.AA
40 CFR 61.10	Source Reporting and Waiver Request	No	Applicable only to facilities constructed prior to the effective date.	None
40 CFR 61.11	Waiver of Compliance	No	Applicable to Regulatory Authorities	None
40 CFR 61.12	Compliance with Standards and Maintenance Requirements	Yes	All requirements are applicable.	VIII.AA
40 CFR 61.13	Emission Tests and Waiver of Emission Tests	No	No testing required under the applicable subpart.	None
40 CFR 61.14	Monitoring	No	No monitoring requirements under the applicable subparts.	None
40 CFR 61.15	Modification	Yes	No requirements other than testing specifications and no testing required under the applicable subparts.	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 61.16	Availability of Information	No	Applies to regulatory authority only.	None
40 CFR 61.17	State Authority	No	Applies to regulatory authority only.	None
40 CFR 61.18	Incorporation by Reference	No	Informational only, no requirements applicable to the facility	None
40 CFR 61.19	Circumvention	Yes	subsumed by regulation (9 VAC 5-20-70)	IV.A.7
40 CFR 61.20 (Subpart B) to 40 CFR 61.140 (Subpart M)	Various	No		None
40 CFR 61.140	Applicability (subpart M)	Yes	No requirements	None
40 CFR 61.141	Definitions	Yes	No requirements	None
40 CFR 61.142	Standards for Asbestos Mills	No		None
40 CFR 61.143	Standard for Roadways	Yes	For on-site roadways	VIII.AA
40 CFR 61.144	Standard for manufacturing	No		None
40 CFR 61.145	Standard for Demolition and Renovation	No		None
40 CFR 61.146	Standard for Spraying	No		None
40 CFR 61.147	Standard for Fabricating	No		None
40 CFR 61.148	Standard for Insulating Materials	No		None
40 CFR 61.149	Standard for Waste Disposal for Asbestos Mills	No		None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 61.150	Standard for Waste Disposal for Fabricating, Demolition, Renovation, and Spraying Operations	No		None
40 CFR 61.151	Standards for Inactive Waste Disposal Sites for asbestos mills and manufacturing and fabricating operations.	Yes, all requirements	Applicable by reference from 40 CFR 60.154 (g)	VIII.AA
40 CFR 61.152	Air Cleaning	No		None
40 CFR 61.153	Reporting	Yes	And form of Appendix A	VIII.AA
40 CFR 61.154	Standard for Active Waste Disposal Sites	Yes, all requirement	All requirements are applicable.	VIII.AA
40 CFR 61.155	Standard for Operations that Convert Asbestos Containing Materials onto Non-asbestos Material	No		None
40 CFR 61.156	Cross-reference to Other Regulations	Yes	Information Only	None
40 CFR 61.157	Delegation of Authority	Yes	No Requirements	None
40 CFR 61.160 (Subpart N) up to 40 CFR 62.14350	Various	No	No requirements applicable to facility	None
40 CFR 62.14350 (Subpart GGG) to 40 CFR 62.14356	Various	No	Applicable only to existing MSW Landfills that have not modified since May 30, 1991. BFI constructed this facility in 1994 and modified the facility in 1999.	None
40 CFR 62.14356 (Subpart GGG) to 40 CFR 68.1	Various	No	No requirements applicable to facility	None

Federal Requirement	Requirement Description	Applicable to Facility?	Comments	T5 Permit Condition
40 CFR 68	Accidental Release Program	Not Presently, but might later.	(40 CFR 68 may apply to this facility in the future.)	VIII.X
40 CFR 69.11 to 40 CFR 82.1	Various	No	No applicable Requirements.	None
40 CFR 82	Protection of Stratospheric Ozone	Yes	(Parts of 40 CFR 82 apply to this facility.)	VIII.W
40 CFR 85.501 to End of Title 40	Various	No	No applicable Requirements under CAA.	None

C. Requirement from State Air Pollution Control regulations - 9VAC 5 (requirements may be abbreviated or paraphrased):

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
Chapter 10	General Definitions	Yes	No requirements	None
Chapter 20	General Provisions			
	10 Applicability	Yes	No requirements	None
				None
	21 Documents Incorporated by Reference	Yes	No requirements	None
	50 Variances	Yes	Permissive, not a requirement	None
	70 Circumvention			
	A. No owner or other person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air pollutants emitted, conceals or dilutes an emission of air pollutants which would otherwise violate this chapter. Such concealment includes, but is not limited to, either of the following: 1. The use of gaseous diluents to achieve compliance with a visible emissions standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 2. The piecemeal carrying-out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.	Yes		IV.A.7
	B. This section does not prohibit the construction of a stack.	No	Permissive, not a requirement	None
	80 Relationship of State Regulations to Federal Regulations	No	Regulators Only. No requirements.	None
	160. Registration.			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	170. Control programs.	Yes	Obsolete requirement. (Completed. Registered by permit application in 1994.)	None
	180. Facility and control equipment maintenance or malfunction.	No	Regulators Only. No requirements.	None
	A. At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment or monitoring equipment, in a manner consistent with good air pollution control practice of minimizing emissions.	Yes Yes	Subsumed by 9 VAC 5-50-20	VIII.O
	B. In case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance which results in excess emissions for more than one hour, the intent to shut down such equipment shall be reported to the board and local air pollution control agency, if any, at least 24 hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following: 1. Identification of the specific facility to be taken out of service as well as its location and permit or registration number; 2. The expected length of time that the air pollution control equipment will be out of service; 3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period; and 4. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage of the air pollution control equipment.	Yes	Subsumed by the more restrictive requirements of 40 CFR 60.753 (e) and (f)	III.A.12(e) and III.A.13
	C. In the event that any affected facility or related air			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the board by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown.... When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the board.	Yes	9 VAC 5-50-380 and 9 VAC 5-80-250 also Subsumed by the more restrictive requirements of 40 CFR 60.753 (e) and (f)	VIII.F III.A.12(e) and III.A.13
	D. In the event that the breakdown period cited in subsection C of this section exists or is expected to exist for 30 days or more, the owner shall, within 30 days of the failure or malfunction and semi-monthly thereafter until the failure or malfunction is corrected, submit to the board a written report containing the following:...	No	No possibility.	None
	E. The provisions of subsection D of this section shall not apply beyond three months of the date of the malfunction or failure. Should the breakdown period exist past the three-month period, the owner may apply for a variance in accordance with 9 VAC 5-20-50 A.	No	No Possibility.	None
	F. The following special provisions govern facilities which are subject to the provisions of Article 3 (9 VAC 5-40-160 et seq.) of 9 VAC 5 Chapter 40, Article 3 (9 VAC 5-50-160 et seq.) of 9 VAC 5 Chapter 50, or Article 1 (9 VAC 5-60-60 et seq.) 9 VAC 5 Chapter 60:...	No	No toxics or HAPS standards apply.	None
	G. No violation of applicable emission standards or monitoring requirements shall be judged to have taken place if the excess emissions or cessation of	Yes	The wording of 9 VAC 5-	VIII.T

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	monitoring activities is due to a malfunction, provided that: 1. The procedural requirements of this section are met or the owner has submitted an acceptable application for a variance, which is subsequently granted; 2. The owner has taken expedient and reasonable measures to minimize emissions during the breakdown period; 3. The owner has taken expedient and reasonable measures to correct the malfunction and return the facility to a normal operation; and 4. The source is in compliance at least 90% of the operating time over the most recent 12-month period.		80-250 has replaced this wording for Title 5 permits.	
	H. Nothing in this section shall be construed as giving an owner the right to increase temporarily the emission of pollutants or to circumvent the emission standards or monitoring requirements otherwise provided in these regulations.	No	Applies to 9 VAC 5-20-180 only. 9 VAC 5-80-250 applies.	None
	I. Regardless of any other provision of this section, the owner of any facility subject to the provisions of these regulations shall, upon request of the board, reduce the level of operation at the facility if the board determines that this is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the board may order that the owner shut down the facility, if there is no other method of operation to avoid a violation of the primary ambient air quality standard. The board reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to	Yes	The wording of 9 VAC 5-80-110 G.3 has replaced this wording for Title 5 permits.	VIII.I

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	operate without violation of any primary ambient air quality standard.			
	J. Any owner of an affected facility subject to the provisions of this section shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. The records shall be maintained in a form suitable for inspection and maintained for at least two years following the date of the occurrence.	Yes	Subsumed by 40 CFR 60.758, 9 VAC 5-50-50B and NSR permit condition 33(m).	III.C.1(p) and III.C.2
	200. Air quality control regions (AQCR).			
	201. Urban areas.	No	List.	None
	202. Metropolitan statistical areas (MSA).	No	List.	None
	203. Air quality maintenance areas (AQMA).	No	List.	None
	204. Non-attainment areas.	No	List.	None
	205. Prevention of significant deterioration areas.	Yes	List.	None
	206. Volatile organic compound and nitrogen oxides emissions control areas.	No	List.	None
	220. Shutdown of a stationary source.	No	List	None
	230. Certification of documents.			
	A. The following documents submitted to the board shall be signed by a responsible official: (i) any emission statement, application, form, report, or compliance certification; (ii) any document required to be so signed by any provision of the regulations of the board; or (iii) any other document containing	No Yes	Applies to regulators only	None VIII.L.2

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	emissions data or compliance information the owner wishes the board to consider in the administration of its air quality programs. A responsible official is defined as follows: 1. For a business entity, such as a corporation, association or cooperative, a responsible official is either: a. The president, secretary, treasurer, or a vice president of the business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity; or b. A duly authorized representative of such business entity if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars) or (ii) the authority to sign documents has been assigned or delegated to such representative in accordance with procedures of the business entity. 2. For a partnership or sole proprietorship, a responsible official is a general partner or the proprietor, respectively. 3. For a municipality, state, federal, or other public agency, a responsible official is either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.	Yes		VIII.L.2

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	B. Any person signing a document under subsection A of this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." C. Subsection B of this section shall be interpreted to mean that the signer must have some form of direction or supervision over the persons gathering the data and preparing the document (the preparers), although the signer need not personally nor directly supervise these activities. The signer need not be in the same line of authority as the preparers, nor do the persons gathering the data and preparing the form need to be employees (e.g., outside contractors can be used). It is sufficient that the signer has authority to assure that the necessary actions are taken to prepare a complete and accurate document. D. Any person who fails to submit any relevant facts or who has submitted incorrect information in a document shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.	Yes Yes		VIII.L.2 VIII.L.2

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
		Yes		V.L.2
Chapter 30	Ambient Air Quality Standards	Yes	No requirements	None
Chapter 40	Existing Stationary Sources 10. Applicability. A. The provisions of this chapter, unless specified otherwise, shall apply to existing sources for which emission standards are prescribed under this chapter, mobile sources and open burning.	No	BFI is not an existing source (built after 1972).	None
	B. The provisions of this chapter shall not apply to sources specified below except in cases where the provisions of this chapter are more restrictive than the provisions of 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.), 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq)., or any permit issued pursuant to 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.); however, such sources shall be subject to the provisions of 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.). 1. Any stationary source (or portion of it), the construction, modification or relocation of which commenced on or after March 17, 1972. 2. Any stationary source (or portion of it), the reconstruction of which commenced on or after December 10, 1976.	Yes	Chapter requirements are applicable to the extent that these requirements are more restrictive than Chapters 50 and 80 and permits. But there are no requirements in this paragraph.	None
	C. If a facility becomes subject to any requirement in these regulations because it exceeds an exemption level, the facility shall continue to be subject to all applicable requirements even if future conditions cause the facility to fall below the exemption level.	No	Already exceeds exemption levels.	None
	20. Compliance.	No	All duplicated by Chapter 50. Not more restrictive.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	21. Compliance schedules.	No	BFI already complies with emission standards more restrictive than this part.	None
	22. Interpretation of emission standards based on process weight-rate tables.	No	BFI already complies with emission standards more restrictive than Chapter 40 emission standards.	None
Chapter 40 (continued)	30. Emission testing.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
	40. Monitoring.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
	41. Emission monitoring procedures for existing sources.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
	50. Notification, records and reporting.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
Chapter 40 Article 1	60. Visible Emission and Fugitive Dust/Emissions to 120.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
Chapter 40	130. Emission Standard for Odor		Chapter 40 requirements	

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
Article 2	to 160.	No	are duplicated by Chapter 50 and are not more restrictive.	None
Chapter 40 Article 3	160. Emission Standards for Toxic Pollutants to 230.	No	Chapter 40 requirements are duplicated by Chapter 50 and are not more restrictive.	None
Chapter 40 Article 4	240. Emission standards for General Process Operations to 420. 240D. "The provisions of this article do not apply to affected facilities subject to other emission standards in this part."	No	BFI is subject to emission standards in Article 43 to the extent that they are more restrictive than the requirements of Chapter 50 and 80.	None
Chapter 40 Articles 5 to 42	Various	No		None
Chapter 40 Article 43	Emission Standards for Municipal Solid Waste Landfills 5800. Applicability and designation of affected facility.	Yes	BFI is subject to emission standards in Article 43 to the extent that they are more restrictive than the requirements of Chapter 50 and 80. No requirements under 5800.	None
	5810. Definitions.	Yes	No requirements	None
	5820. Standard for air emissions. C.2.b.(2)(b) (A passive collection system shall) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners will be installed as required under 9 VAC 20-80-250 B.	Yes	Additional requirement over 9 VAC 5-50-410, 40 CFR 60.752(b)(2)(ii)(B)(2).	III.A.9
	5822. Operational standards for collection and control	No	No requirements more	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	systems.		restrictive than 9 VAC 5-50-410, 40 CFR 60.753	
	5824. Specifications for active collection systems.	No	No requirements more restrictive than 9 VAC 5-50-410, 40 CFR 60.759	None
	5830. Standard for fugitive dust/emissions.	None	No requirements more restrictive than 9 VAC 5-50-80 & 90, 9 VAC 5-50-410, 40CFR 60.18(c)(1) and the NSR permit, Conditions 3, 11, 12, and 13.	None
	5840. Standard for odor.	No	No requirements more restrictive than 9 VAC 5-50-140.	None
	5850. Compliance.	No	No requirements more restrictive than 9 VAC 5-50-410, 40 CFR 60.755 and the NSR permit conditions.	None
	5855. Compliance schedule. B. For each MSW landfill meeting the conditions in 9 VAC 5-40-5820 A 2 whose NMOC rate is less than 50 mega-grams per year on April 1, 1999, installation of collection and control systems capable of meeting the standards established under 9 VAC 5-40-5820 shall be accomplished within 30 months of the date when the condition in 9 VAC 5-40-5820 C is met (i.e., the date of the first annual NMOC emission rate which equals or	Yes	More restrictive than 9 VAC 5-50-410, 40 CFR 60.752(b)(2)(ii) and NSR permit conditions 21, 22, and 23.	III.A.4(a)(i-v)

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	exceeds 50 mega-grams per year), as follows: 1. The collection and control design plan shall be submitted to the board within 12 months. 2. Construction contracts shall be awarded within 18 months. 3. Construction shall be initiated within 20 months. 4. Construction shall be completed within 28 months. 5. Final compliance shall be achieved within 30 months after the date the initial annual emission rate report shows NMOC emissions greater than or equal to 50 mega-grams per year.			
	5860. Test methods and procedures.	No	No requirements more restrictive than 9 VAC 5-50-410, 40 CFR 60.754 and the NSR permit conditions.	None
	5870. Monitoring.	No	No requirements more restrictive than 9 VAC 5-50-410, 40 CFR 60.756 and the NSR permit conditions.	None
	5880. Reporting.	No	No requirements more restrictive than 9 VAC 5-50-410, 40 CFR 60.757 and the NSR permit conditions.	None
	5890. Recordkeeping.	No	No requirements more restrictive than 9 VAC 5-	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
			50-410, 40 CFR 60.758 and the NSR permit conditions.	
	5900. Registration.	Yes	Obsolete Requirement. Source was already registered as part of the NSR permit process.	None
	5910. Facility and control equipment maintenance or malfunction.	No	No requirements more restrictive than 9 VAC 5-50-380.	None
	5920. Permits.	No.	No requirements more restrictive than 9 VAC 5-80-10.	None
Chapter 40 Articles 45 and 46 (44 is reserved)	Various	No		None
Chapter 50, Part I Special Provisions	10. Applicability.	Yes	Construction commenced after 1972. But no requirements.	None
	20. Compliance. A. Sixty days after achieving the maximum production rate, but not later than 180 days after initial start-up, no owner or other person shall operate any new or modified source in violation of any standard of performance prescribed under this chapter.	Yes	Obsolete Requirement. BFI is already operating in compliance with the standards.	None
	1. Compliance with standards in this part, other than opacity standards, shall be determined by performance tests established by 9 VAC 5-50-30, unless specified otherwise in the applicable standard.	Yes	Specified in 40 CFR 60.8, 60.754.	III.D (All)

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	2. Compliance with opacity standards in this chapter shall be determined by conducting observations in accordance with Reference Method 9 or any alternative method, if specified in the permit granted pursuant to 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.). Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The results of continuous monitoring by transmissometer which indicated that the opacity at the time observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission. In such cases, the owner must prove that, at the time of the alleged violation, the instrument used met Performance Specification 1 of Appendix B of 40 CFR 60, and had been properly maintained and calibrated, and that the resulting date had not been tampered with in any way.	Yes	Method 22 specified by 40 CFR 60.18 for flares. Otherwise 40 CFR 60.11 specifies Method 9. BFI does not plan to use opacity monitors. Requirements for use of opacity monitors for evidence of compliance are permissive, and not requirements unless used.	III.D.5(b) and (c)
	3. The opacity standards prescribed under this chapter shall apply at all times except during periods of startup, shutdown, malfunction and as otherwise provided in the applicable standard.	Yes		III.A.15
	4. Variation from a specified standard may be granted by the board for a definite period for testing and adjustment.	Yes	Permissive, not a requirement.	None
	B. No owner of a new or modified source subject to the provisions of this chapter shall fail to conduct performance tests as required under this chapter.	Yes	Duplicates NSR permit requirements. Reworded in the proposed T5 permit.	III.D.4 and 5
	C. No owner of a new or modified source subject to the provisions of this chapter shall fail to install, calibrate, maintain and operate equipment for continuously monitoring and recording emissions or process	Yes	Duplicates NSR permit requirements. Reworded in the proposed T5 permit.	III.B.1, 3, 4, 5, and 6

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	parameters or both as required under this chapter. D. No owner of a new or modified source subject to the provisions of this chapter shall fail to provide notifications and reports, revise reports, maintain records or report performance test or monitoring results as required under this chapter.	Yes	Duplicates NSR permit requirements. Reworded in the proposed T5 permit.	III.E (All)
	E. At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	Yes		VIII.O
	F. At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.	Yes		VIII.N.6
	G. Reserved.			
	H. Stack heights. 1. The degree of emission limitation required of any source owner for control of any air pollutant shall not be affected in any manner by: a. So much of the stack height of any source as	Yes	Applicable to regulators, no requirements for the facility.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	exceeds good engineering practice, or b. Any other dispersion technique. 2. The provisions of subsection H 1 shall not apply to: a. Stack heights in existence, or dispersion techniques implemented on or before December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by sources, as defined in Section 111(a)(3) of the federal Clean Air Act, which were constructed, or reconstructed, or for which major modifications, as defined in 9 VAC 5-30-20 and 9 VAC 5-30-30, were carried out after December 31, 1970; or b. Coal-fired steam electric generating units subject to the provisions of Section 118 of the federal Clean Air Act, which commenced operation before July 1, 1957, and whose stacks were constructed under a construction contract awarded before February 8, 1974. 3. Prior to the adoption of a new or revised emission limitation that is based on a good engineering practice stack height that exceeds the height allowed by paragraphs 1 or 2 of the GEP definition, the board must notify the public of the availability of the demonstration study and must provide opportunity for public hearing on it. 4. For purposes of subsection H of this section, such height shall not exceed the height allowed by paragraphs 1 or 2 of the GEP definition unless the owner demonstrates to the satisfaction of the board, after 30 days notice to the public and opportunity for public hearing, that a greater height is necessary as provided under paragraph 3 of the GEP definition.			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	5. In no event may the board prohibit any increase in any stack height or restrict in any manner the maximum stack height of any source. 6. Compliance with standards of performance in this chapter shall not be affected in any manner by the stack height of any source or any other dispersion technique.			
	30. Performance testing. A. Performance tests for new or modified sources shall be conducted and reported and data shall be reduced as set forth in this chapter and the test methods and procedures contained in each applicable subpart listed in 9 VAC 5-50-410. Any new or modified source, for which no standards of performance are set forth in Article 5 (9 VAC 5-50-400 et seq.) of 9 VAC 5 Chapter 50, shall be performance tested by appropriate reference methods; if not appropriate, then equivalent or alternative methods shall be used. In cases where no appropriate reference method exists for a new or modified source subject to a standard of performance for volatile organic compounds, the test methods in 9 VAC 5-20-121 may be considered appropriate.	Yes	Standards of performance and reference methods are specified in the proposed T5 permit.	III.D.4(b), (g), and (i)
	B. Performance testing for new or modified sources shall be subject to testing guidelines approved by the board. Procedures may be adjusted or changed by the board to suit specific sampling conditions or needs based upon good practice, judgment and experience. When such tests are adjusted, consideration shall be given to the effect of such change on established standards. Tests shall be performed under the direction of persons whose qualifications are acceptable to the board.	Yes	Adjustment procedure requirements apply to the regulator, not to the facility.	III.D.4(d)
	C. Performance tests for new or modified sources			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	shall be conducted under conditions which the board shall specify to the owner based on representative performance of the source. The owner shall make available to the board such records as may be necessary to determine the conditions of the performance tests. Operation during periods of startup, shutdown and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.	Yes		III.D.4(c)
	D. An owner may request that the board determine the opacity of emissions from a new or modified source during the performance tests required by this section.	Yes	Permissive, not a requirement.	None
	E. Unless specified otherwise in the applicable standard, each performance test for a new or modified source shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or if conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner's control, compliance may, upon the approval of the board, be determined using the arithmetic mean of the results of the two other runs.	Yes	Allowing fewer runs is permissive, not a requirement.	III.D.4(e)
	F. The board may test emissions of air pollutants from any new or modified source. Upon request of the board the owner shall provide, or cause to be	Yes		III.D.4(a)(I-iv)

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	provided, performance testing facilities as follows: 1. Sampling ports adequate for test methods applicable to such source; 2. Safe sampling platforms; 3. Safe access to sampling platforms; 4. Utilities for sampling and testing equipment. G. Upon request of the board, the owner of any new or modified source subject to the provisions of this chapter shall conduct performance tests in accordance with procedures approved by the board.	Yes		III.D.4(a)
	40. Monitoring. A. Unless otherwise approved by the board or specified in applicable subparts listed in 9 VAC 5-50-410, the requirements of this section shall apply to all continuous monitoring systems required for affected facilities in accordance with applicable subparts listed in 9 VAC 5-50-410. However, nothing in this chapter shall exempt any owner from complying with subsection F of this section.	Yes	Specified in 40 CFR 60 Subparts A and WWW. No requirements in this paragraph.	None
	B. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 9 VAC 5-50-30. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.	Yes	Subsumed by 40 CFR subparts A and WWW	IV.B.1
	C. During any performance tests required under 9 VAC 5-50-30 or within 30 days thereafter and at such other times as may be requested by the board, the owner of any affected facility shall conduct continuous monitoring system performance evaluations and furnish the board within 60 days of them two or, upon request, more copies of a written report of the results	Yes	Subsumed by 40 CFR subparts A and WWW	IV.B.1

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	of such tests. These continuous monitoring system performance evaluations shall be conducted in accordance with the requirements and procedures contained in the applicable performance specification of Appendix B of 40 CFR 60.			
	D. Unless otherwise approved by the board, all continuous monitoring systems required by subsection A of this section shall be installed, calibrated, maintained and operated in accordance with applicable requirements in this section, 40 CFR 60.13 and the applicable subpart listed in 9 VAC 5-50-410.	Yes	Subsumed by 40 CFR subparts A and WWW	III.B.1
	E. After receipt and consideration of written application, the board may approve alternatives to any monitoring procedures or requirements of this chapter including, but not limited to, the following:	Yes	Requirements for regulators only.	None
	1. Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this chapter would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases;			
	2. Alternative monitoring requirements when the affected facility is infrequently operated;			
	3. Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions;			
	4. Alternative locations for installing continuous monitoring systems or monitoring devices when the owner can demonstrate that installation at alternate locations will enable accurate and representative measurements;	Yes	Applicable to regulators only. No requirements for the facility.	None
	5. Alternative methods of converting pollutant concentration measurements to units of the			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	applicable standards; 6. Alternative procedures for performing daily checks or zero and span drift that do not involve use of span gases or test cells; 7. Alternatives to the ASTM test methods or sampling procedures specified by any subpart listed in 9 VAC 5-50-410; 8. Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1 or Appendix B of 40 CFR 60, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1 of Appendix B of 40 CFR 60. The board may require that demonstration be performed for each affected facility; and 9. Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point. F. Upon request of the board, the owner of a new or modified source subject to the provisions of this chapter shall install, calibrate, maintain and operate equipment for continuously monitoring and recording emissions or process parameters or both in accordance with methods and procedures acceptable to the board.	Yes		III.B.1
	50. Notification, records and reporting.		Subsumed by 40 CFR	III.E.7

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	A. Any owner of a new or modified source subject to the provisions of this chapter shall provide written notifications to the board of the following:	Yes	subpart A	
	1. The date of commencement of construction, reconstruction or modification of a new or modified source postmarked no later than 30 days after such date;	Yes	Subsumed by 40 CFR subpart A	III.E.7(a)
	2. The anticipated date of initial startup of a new or modified source postmarked not more than 60 days nor less than 30 days prior to such date;	Yes	Subsumed by 40 CFR subpart A	III.E.7(b)
	3. The actual date of initial startup of a new or modified source postmarked within 15 days after such date;	Yes	Subsumed by 40 CFR subpart A	III.E.7(c)
	4. The date of any performance test required by 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq). and any other performance test the owner wishes the board to consider in determining compliance with a standard. Notification shall be postmarked not less than 30 days prior to such date; and	Yes	Subsumed by 40 CFR subpart A	III.E.7(d)
	5. The date upon which demonstration of the continuous monitoring system performance begins in accordance with 9 VAC 5-50-40 C. Notification shall be postmarked not less than 30 days prior to such date.	Yes	Subsumed by 40 CFR subpart A	III.E.7(e)
	B. Any owner of a new or modified source subject to the provisions of 9 VAC 5-50-40 A shall maintain records of the occurrence and duration of any startup, shutdown or malfunction in the operation of such source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	Yes	Subsumed by 40 CFR subpart A	III.C.1(p)
	C. Each owner required to install a continuous	No	Excess emission reports	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	monitoring system shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410 to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:		are not required by the applicable subpart.	
	1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;	No		None
	2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;	No		None
	3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and	No		None
	4. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.	No		None
	D. Any owner of a new or modified source subject to the provisions of this chapter shall maintain a file of all measurements, including continuous monitoring testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information	Yes	Subsumed by 40 CFR subpart A and the NSR permit condition 33(m). The NSR permit is more restrictive, requiring records be kept for five years..	III.C.1(n) and III.C.2

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	required by this chapter recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports and records.			
	E. Any data or information required by these regulations, any permit or order of the board, or which the owner wishes the board to consider, to determine compliance with an emission standard must be recorded or maintained in a time frame consistent with the averaging period of the standard.	Yes	Permissive, not a requirement.	None
	F. The owner of a stationary source shall keep records as necessary to determine its emissions. Any owner claiming that a facility is exempt from the provisions of these regulations shall keep records to demonstrate its continued exempt status.	Yes	Subsumed by 40 CFR subpart A . Not exempt.	III.C.1(e)
	G. The owner of a new or modified source subject to any volatile organic compound emission standard for a coating operation or printing process shall maintain records in accordance with the applicable procedure in 9 VAC 5-20-121.	No	Not a printing or coating operation.	None
	H. Upon request of the board, the owner of a new or modified source subject to the provisions of this chapter shall provide notifications and reports, maintain records or report performance test or monitoring results in a manner and form and using procedures acceptable to the board.	Yes	Subsumed by NSR permit condition 33 and 42. The wording of 9 VAC 5-80-110 G(6) updates the permit wording of condition 42 for Title 5 permit purposes.	III.C.1 and V.L
Chapter 50, Part II Article 1	Standards of Performance For Visible Emissions and Fugitive Dust/Emissions			
	60. Applicability and designation of affected facility.	Yes	No requirements	None
	70. Definitions.	Yes	No requirements	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	80. Standard for visible emissions. Unless specified otherwise in this part, on or after the date on which the performance test required to be conducted by 9 VAC 5-50-30 is completed, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater that 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section	Yes	NSR permit condition 13 is more restrictive and subsumes this requirement.	III.A.3
	90. Standard for fugitive dust/emissions. During the construction, modification or operation phase of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:	Yes	NSR permit condition 3 is to some degree more specific than this general condition and so subsumes the applicable requirements.	VIII.N
	1. Used, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;	Yes	Construction of landfill cells, clearing of land and grading are applicable.	VIII.N.1
	2. Application of asphalt, oil water or suitable chemicals on dirt roads, materials stockpiles and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;	Yes		VIII.N.2 & 3
	3. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during	No	No applicable operations	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	sandblasting or other similar operations; 4. Open equipment for conveying or transporting materials likely to create objectionable air pollution when airborne shall be covered, or treated in an equally effective manner at all times when in motion; and	Yes	This requirement was added to the proposed T5 permit verbatim.	VIII.N.4
	5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.	Yes	Virtually the same as the NSR permit requirement	VIII.N.5
	100. Monitoring. (Refers to the requirements of 9 VAC-5-50-40 and 9 VAC-5-40-41)	Yes	Also subsumed by 40 CFR subparts A and WWW	See section on 9 VAC 5-50-40 for condition references.
	110. Test methods and procedures. (Refers to the requirements of 9 VAC-5-50-70, but this is an error. It should refer to 9 VAC-5-50-30.)	Yes	Subsumed by 9 VAC 5-50-30.	See section on 9 VAC 5-50-30 for condition references.
	120. Waivers.	No	Requirement applies only to regulators	None
Chapter 50, Part II Article 2	130. Applicability and designation of affected facility.	Yes	No requirements	None
	140. Standard for odorous emissions. A. The owner shall use the best available control technology as approved by the board for the control of odorous emissions.	No	Applies to facilities without permits (i.e. exempt)	None
	B. No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any odorous emissions in excess of that resultant from using best available control technology, as reflected in any condition that may be placed upon the permit approval for the facility.	Yes	Applies to facilities with a permit.	IX.1

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	150. Determination of a Violation	Yes	Requirements are for regulators only	None
Chapter 50, Part II Article 3	Standards of Performance For Toxic Pollutants (Rule 5-3). 160. Applicability (B. The board may establish priorities for implementation of this rule...) (D. Exempted from the provisions of this rule is any stationary source or operation...that has a potential to emit a toxic less than the exempt emission rate calculated using the following formulas for the applicable TLV...)	No	The board has set the priority toxics to be the same as the federal HAPs list in APP-5. Computation of the exempt emission rate of each priority toxic was made for the 3/30/99 NSR permit and compared with the potential to emit each priority toxic listed in AP-42.2.4, as calculated using the peak Tier 2 NMOC emission rate and emission factors listed in AP-42 Table 2.4-1. All toxics were exempt.	None
Chapter 50, Part II Article 4	Standards of performance for stationary sources. 240. Applicability and designation of affected facility. 250. Definitions. 260. Standard for stationary sources. No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any emissions in excess of that resultant from using best available control technology, as reflected in any condition that may be placed upon the permit approval for the facility.	 Yes Yes Yes	 No requirements No requirements Subsumed by NSR permit conditions 3 through 13, 21, 22, 23 and 24 (BACT)	 None None III.A.1-13.

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	270. Standard for major stationary sources (non-attainment areas).	No	Not located in an non-attainment area	None
	280. Standard for major stationary sources (prevention of significant deterioration areas).	No	Evaluated during the 3/30/99 NSR permit review process in accordance with 40 CFR 60.754(c) to be a minor source, not subject to PSD major requirements.	None
	290. Standard for visible emissions. (Refers to the requirements of 9 VAC-5-50-60 through 9 VAC-5-50-120)	Yes	NSR permit conditions 13 and 20 are more restrictive and subsume these requirements.	III.A.3 & 4
	300. Standard for fugitive dust/emissions. (Refers to the requirements of 9 VAC-5-50-60 through 9 VAC-5-50-120)	Yes	NSR permit condition 3 and 9 VAC 5-50-90.4 is more restrictive and subsumes these requirements.	VIII.N
	310. Standard for odor. (Refers to the requirements of 9 VAC-5-50-130 through 9 VAC-5-50-150)	Yes	Subsumed by 9 VAC 5-50-130.	VI.1
	320. Standard for toxic pollutants. (Refers to the requirements of 9 VAC-5-50-130 and 9 VAC-5-50-150 in error; should be 9 VAC 5-50-160 through 230)	No	This facility is exempt from those requirements by low emission rate.	None
	330. Compliance. A. The provisions of 9 VAC 5-50-20 (Compliance) apply.	Yes	Subsumed by 9 VAC 5-50-20 (Compliance)	Various, see T5 Permit conditions for 9 VAC 5-50-20

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	B. Nothing in this rule is intended to relieve any owner or other person from complying with any applicable standards or requirements contained in this part or other parts.	Yes	Point of Information, not a requirement.	above.
	340. Test methods and procedures. The provisions of 9 VAC 5-50-30 (Testing) apply.	Yes	Subsumed by 9 VAC 5-50-30 (Testing)	None
	350. Monitoring. The provisions of 9 VAC 5-50-40 (Monitoring) apply.	Yes	Subsumed by 9 VAC 5-50-40 (Monitoring)	Various, see T5 Permit conditions for 9 VAC 5-50-30 above.
	360. Notification, records and reporting. The provisions of 9 VAC 5-50-50 (Notification, records, and reporting) apply.	Yes	Subsumed by 9 VAC 5-50-50 (Notification, records, and reporting)	Various, see T5 Permit conditions for 9 VAC 5-50-40 above.
	370. Registration. The provisions of 9 VAC 5-20-160 (Registration) apply.	Yes	Subsumed by 9 VAC 5-20-160 (Registration)	Various, see T5 Permit conditions for 9 VAC 5-50-50 above.
	380. Facility and control equipment maintenance or malfunction. The provisions of 9 VAC 5-20-180 (Facility and control equipment maintenance or malfunction) apply.	Yes	Subsumed by 9 VAC 5-20-180 (Facility and control equipment maintenance or malfunction)	Various, see T5 Permit conditions for 9 VAC 5-20-160 above.

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	390. Permits. A permit may be required prior to beginning any of the activities specified below and the provisions of this chapter and 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.) may apply. Owners contemplating such action should contact the appropriate regional office for guidance. 1. Construction of a facility. 2. Reconstruction (replacement of more than half) of a facility. 3. Modification (any physical change to equipment) of a facility. 4. Relocation of a facility. 5. Reactivation (restart-up) of a facility.	Yes	Replaced by the wording of 9 VAC 5-80-110 J for Title 5 purposes.	Various, see T5 Permit conditions for 9 VAC 5-20-180 above. VIII.J
Chapter 50, Part II Article 5	Environmental Protection Agency Standards of Performance For New Stationary Sources. 400. General.	Yes	No requirements	
	410. Designated standards of performance.	Yes	Subparts A, Kb and WWW apply.	See B. Federal Requirements above.
	420. Word or phrase substitutions	Yes	For permit purposes "Permittee" replaced "owner or operator" and "Director, Piedmont Region" replaced "Administrator where delegated," otherwise "EPA" replaced "Administrator."	None
Chapter 50, Part II Article 6	Standards Of Performance For Regulated Medical Waste Incinerators.	No	No applicable emission units at BFI.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
Chapter 60, Part I Special Provisions	Special Provisions - National Emission Standards for Hazardous Air Pollutants. 10. Applicability. (Any source for which a NESHAPS standard applies) 20. Compliance. 30. Emission testing. 40. Monitoring. 50. Notification, records and reporting.	Yes (all)	40 CFR 61.154 always applies to landfills receiving asbestos-containing waste materials (ACWM), so all of the Special Provisions are applicable, except there are no testing requirements nor monitoring requirements in the applicable NESHAPs subparts (61.154, 61.151 and possibly 61.143).	VIII.AA
Chapter 60, Part II Article 1, Emission Standards	Emission Standards -National Emission Standards for Hazardous Air Pollutants. 60. General. (40 CFR 61 incorporated by reference) 70. Designated emission standards. 80. Word or phrase substitutions.	 Yes Yes (parts)	 No requirements 40 CFR 61, Subparts A and parts of Subpart M (61.154 while landfill is active, 61.151 when landfill is inactive, and 61.143 if ACWM is used to construct or maintain roadways on the property. For permit purposes "Permittee" replaced "owner or operator".and "Director, Piedmont Region" replaced "Administrator where delegated," otherwise	VIII.AA

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
			"EPA" replaced "Administrator".	
Chapter 60, Part II Article 2, Emission Standards	Emission Standards -National Emission Standards for Hazardous Air Pollutants for Source Categories. (Incorporated by reference.)	No	No emission standards listed are applicable to this facility.	None
Chapter 70	Air Pollution Episode Prevention	No	Facility does not operate in a nonattainment area.	None
Chapter 80, Part I	10. Permits - New and Modified Stationary Sources 11. Stationary Source Permit Exemption Levels	Yes (all)	Applies to the non-exempt construction, modification, reconstruction and relocation of stationary sources to which no standard applies under Articles 8 and 9 (Major Sources and Major Modifications locating in Attainment and nonattainment Areas, respectively. The wording of Article 1 (Federal Operating Permits) updates the wording of these requirements for Title 5 permit purposes.	VIII.J, VIII.U, and IV.A.1, 2 and 7
Chapter 80, Part II Article 1	Federal Operating Permits 50. Applicability. (A.1 Any source, including an area source, subject to a standard, limitation, or other requirement under 111 of the federal Clean Air Act.) 60. Definitions.	Yes, until closure. Yes	40 CFR 60.752(c), so applicable but no requirements. No requirements	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	70. General.	Yes	Information only and Regulator requirements. No facility requirements.	
	80. Applications. A. A single application is required identifying each emission unit subject to this article. The application shall be submitted according to the requirements of this section, 9 VAC 5-80-90, and procedures approved by the board. Where several units are included in one stationary source, a single application covering all units in the source shall be submitted. A separate application is required for each stationary source subject to this article.	Yes	Obsolete Requirement. Application submitted.	None
	B. For each stationary source, the owner shall submit a timely and complete permit application in accordance with subsections C and D of this section.	Yes	Obsolete Requirement. Application submitted.	None
	C. Timely application. 1. The owner of a stationary source applying for a permit under this article for the first time shall submit an application within 12 months after the source becomes subject to this article...	Yes	Obsolete Requirement. Source already constructed. Application already submitted.	None
	2. New source review. a. The owner of a source subject to the requirements of § 112(g)(2) (construction, reconstruction or modification of sources of hazardous air pollutants) of the federal Clean Air Act or to the provisions of 9 VAC 5-80 Part II, Permit Procedures, Article 8 (9 VAC 5-80-1700 et seq.) of this part shall file a complete application to obtain the permit or permit revision within 12 months after commencing operation. Where an existing permit issued	Yes	Subject to NSR review requirements and has a current NSR permit issued pursuant to 9 VAC 5-80-1700 requiring a permit prior to construction. More restrictive than this requirement.	IV.A

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	under this article would prohibit such construction or change in operation, the owner shall obtain a permit revision before commencing operation. b. The owner of a source may file a complete application to obtain the permit or permit revision under this article on the same date the permit application is submitted under the requirements of §112(g)(2) of the federal Clean Air Act or under 9 VAC 5-80 Part II, Permit Procedures, Article 8 (9 VAC 5-80-1700 et seq.) of this part.	Yes	Permissive, and information only. No requirements.	IV.A.3
	3. For purposes of permit renewal, the owner shall submit an application at least six months but no earlier than eighteen months prior to the date of permit expiration.	Yes		VIII.B
	D. Complete application. 1. To be determined complete, an application shall contain all information required pursuant to 9 VAC 5-80-90.	Yes	Informational, not a requirement.	None
	2. Applications for permit revision or for permit reopening shall supply information required under 9 VAC 5-80-90 only if the information is related to the proposed change.	Yes	Informational, not a requirement.	None
	3. Within 60 days of receipt of the application, the board shall notify the applicant in writing either that the application is or is not complete. If the application is determined not to be complete, the board shall provide (i) a list of the deficiencies in the notice and (ii) a determination as to whether the application contains sufficient information to begin a review of the application.	Yes	Requirements are applicable to regulators, not the facility.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	4. If the board does not notify the applicant in writing within 60 days of receipt of the application, the application shall be deemed to be complete.	Yes	Requirements are applicable to regulators, not the facility.	None
	5. For minor permit modifications, a completeness determination shall not be required.	Yes	Requirement is applicable to regulators, not the facility.	None
	6. If, while processing an application that has been determined to be complete, the board finds that additional information is necessary to evaluate or take final action on that application, it may request such information in writing and set a reasonable deadline for a response.	Yes	Requirement is applicable to regulators, not the facility.	None
	7. The submittal of a complete application shall not affect the requirement that any source have a preconstruction permit under 9 VAC 5-80 Part II, Permit Procedures, Article 8 (9 VAC 5-80-1700 et seq.) of this part. More.....	Yes		IV.A.2
	8. Upon notification by the board that the application is complete or after 60 days following receipt of the application by the board, the applicant shall submit three additional copies of the complete application to the board.	Yes	Requirement is obsolete. Already completed.	None
	E. Duty to supplement or correct application. 1. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.	Yes		VIII.V
	2. An applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.	Yes		VIII.V

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	F. Application shield.			
	1. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of this article until the board takes final action on the application under 9 VAC 5-80-150.	Yes	No requirement for the facility. Applies to regulators.	None
	2. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of this section for a renewal permit, except in compliance with a permit issued under this article.	Yes		VIII.B.3
	3. If the source applies for a minor permit modification and wants to make the change proposed under the provisions of either 9 VAC 5-80-210 F or 9 VAC 5-80-220 E, the failure of the source to have a permit modification or the operation of the source without a permit modification shall not be a violation of this article until the board takes final action on the application under 9 VAC 5-80-150.	Yes	No requirement for the facility. Applies to regulators.	None
	4. If the source notifies the board that it wants to make an operational flexibility permit change under 9 VAC 5-80-280 B, the failure of the source to have a permit modification or operation of the source without a permit modification for the permit change shall not be a violation of this article unless the board notifies the source that the change is not a permit change as specified in 9 VAC 5-80-280 B 1 a.	Yes	No alternative operating scenarios were requested or approved.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	5. If an applicant submits a timely and complete application under this section for a permit renewal but the board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.	Yes	No requirements for the facility. Applies to regulators only.	None
	6. The protection under subsections F 1 and F 5 (ii) of this section shall cease to apply if, subsequent to the completeness determination made pursuant to subsection D of this section, the applicant fails to submit by the deadline specified in writing by the board any additional information identified as being needed to process the application.	Yes	No requirements for the facility. Applies to regulators only.	None
	G. Signatory and certification requirements.	Yes		VIII.L.2
	1. Any application form, report, compliance certification, or other document required to be submitted to the board under this article shall be signed by a responsible official.			
	2. Any person signing a document required to be submitted to the board under this article shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the	Yes		VIII.L.2

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."			
	90. Application information required.	Yes		VIII.B
	100. Emission caps.	Yes		None.
	110. Permit content. A. General. 1. For major sources subject to this article, the board shall include in the permit all applicable requirements for all emissions units in the major source except those deemed insignificant in Article 4 (9 VAC 5-80-710 et seq.) of this part.	Yes No		
	2. For any source other than a major source subject to this article, the board shall include in the permit all applicable requirements that apply to emissions units that cause the source to be subject to this article.	Yes	No caps placed on the source's emissions.	See permit.
	3. For all sources subject to this article, the board shall include in the permit applicable requirements that apply to fugitive emissions regardless of whether the source category in question is included in the list of sources contained in the definition of major source.	Yes	Not a major source.	VIII.N
	4. Each permit issued under this article shall include the elements listed in subsections B through N of this section.		This SOB demonstrates that this has been done.	

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	B. Emission limitations and standards. Each permit shall contain terms and conditions setting out the following requirements with respect to emission limitations and standards:	Yes	Done.	See permit.
	1. The permit shall specify and reference applicable emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.	Yes		III.A
	2. The permit shall specify and reference the origin of and authority for each term or condition and shall identify any difference in form as compared to the applicable requirement upon which the term or condition is based.	Yes	Done.	See permit.
	3. If applicable requirements contained in these regulations allow a determination of an alternative emission limit at a source, equivalent to that contained in these regulations, to be made in the permit issuance, renewal, or significant modification process, any permit containing such equivalency determination shall contain provisions to ensure that any resulting emissions limit has been demonstrated to be quantifiable, accountable, enforceable, and based on replicable procedures.	Yes	Done. Done.	None
	C. Equipment specifications and operating parameters. Each permit shall contain terms and conditions setting out the following elements identifying equipment specifications and operating parameters...:	Yes	None exist or were requested.	II.
	1. Specifications for permitted equipment identified as thoroughly as possible. The identification shall include, but not be limited to, type, rated capacity,	Yes		II.A

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	and size. 2. Specifications for air pollution control equipment installed or to be installed and the circumstances under which such equipment shall be operated. 3. Specifications for air pollution control equipment operating parameters, where necessary to ensure that the required overall control efficiency is achieved. D. Duration. Each permit shall contain a condition setting out the expiration date, reflecting a fixed term of five years. E. Monitoring. Each permit shall contain terms and conditions setting out the following requirements with respect to monitoring: 1. All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to §504(b) or §114(a)(3) of the federal Clean Air Act concerning compliance monitoring, including enhanced compliance monitoring. 2. Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to subsection F 1 a of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions	Yes Yes Yes Yes Yes Yes		II.B III.A.2-15 VIII.B and Page 1 III.B and VIII. III.B.9

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	may be sufficient to meet the requirements of subsection E 2 of this section. 3. As necessary, requirements concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.			
	F. Recordkeeping and reporting. 1. To meet the requirements of subsection E of this section with respect to record keeping, the permit shall contain terms and conditions setting out all applicable record keeping requirements and requiring, where applicable, the following:	Yes		III.B and IV.B.1
	a. Records of monitoring information that include the following: (1) The date, place as defined in the permit, and time of sampling or measurements. (2) The date(s) analyses were performed. (3) The company or entity that performed the analyses. (4) The analytical techniques or methods used. (5) The results of such analyses. (6) The operating conditions existing at the time of sampling or measurement.	Yes		VIII.C.1
	b. Retention of records of all monitoring data and support information for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.	Yes		VIII.C.2
	2. To meet the requirements of subsection E of this section with respect to reporting, the permit shall	Yes (all)		VIII.C.3

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	contain terms and conditions setting out all applicable reporting requirements and requiring the following: a. Submittal of reports of any required monitoring at least every six months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 9 VAC 5-80-80 G. b. Prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The board shall define "prompt" in the permit condition in relation to (i) the degree and type of deviation likely to occur and (ii) the applicable requirements. G. Enforcement. Each permit shall contain terms and conditions with respect to enforcement that state the following: 1. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. 2. The permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.	Yes Yes		VIII.G VIII.H

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.	Yes		VIII.I
	4. The permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in subsection L of this section, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.	Yes		VIII.J
	5. The permit does not convey any property rights of any sort, or any exclusive privilege.	Yes		VIII.K
	6. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.	Yes		VIII.L
	H. Permit fees. Each permit shall contain a condition setting out the requirement to pay permit fees consistent with the fee schedule approved pursuant to Article 2 (9 VAC 5-80-310 et seq.) of this part.	Yes		VIII.M
	I. Emissions trading. 1. Each permit shall contain a condition with respect to emissions trading that states the following:			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.	Yes		VIII.Z
	2. Each permit shall contain the following terms and conditions, if the permit applicant requests them, for the trading of emissions increases and decreases within the permitted facility, to the extent that these regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade: a. All terms and conditions required under this section except subsection N shall be included to determine compliance. b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions. c. The owner shall meet all applicable requirements including the requirements of this article.	Yes		VIII.Z
	J. Alternative operating scenarios. Each permit shall contain terms and conditions setting out requirements with respect to reasonably anticipated operating scenarios when identified by the source in its application and approved by the board. Such requirements shall include but not be limited to the following:	No (all)		None
	K. Compliance. Consistent with subsections E and F of this section, each permit shall contain terms and conditions setting out the following requirements with respect to compliance:			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	1. Compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.	Yes	Not identified by the applicant in the application.	VIII.C
	2. Inspection and entry requirements that require that, upon presentation of credentials and other documents as may be required by law, the owner shall allow the board to perform...	Yes		VIII.P
	3. A schedule of compliance consistent with 9 VAC 5-80-90 I.	Yes		VI
	4. Progress reports consistent with an applicable schedule of compliance...	Yes		
	5. Requirements for compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. Permits shall include...	Yes (all)		VIII.D
	L. Reopening. Each permit shall contain terms and conditions setting out the following requirements with respect to reopening the permit prior to expiration:...	Yes		VIII.Q
	M. Miscellaneous. The permit shall contain terms and conditions pertaining to other requirements as may be necessary to ensure compliance with these regulations, the Virginia Air Pollution Control Law and the federal Clean Air Act.	Yes	In Compliance. Obsolete Requirements	Various
	N. Federal enforceability. 1. All terms and conditions in a permit, including any provisions designed to limit a source's potential to emit, are enforceable by the administrator and	Yes		VIII.A

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	citizens under the federal Clean Air Act, except as provided in subsection N 2 of this section. 2. The board shall specifically designate as being only state-enforceable any terms and conditions included in the permit that are not required under the federal Clean Air Act or under any of its applicable federal requirements. Terms and conditions so designated are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.	No		None
	3. The board shall specifically designate as state enforceable any applicable state requirement that has been submitted to the administrator for review to be approved as part of the State Implementation Plan and that has not yet been approved. The permit shall specify that the provision will become federally enforceable upon approval of the provision by the administrator and through an administrative permit amendment.	Yes	No State Only Requirements	IX.1
	120. General permits.	No	Not applicable.	None
	130. Temporary sources.	No	Not a temporary source.	None
	140. Permit shield.	Yes (all)	No requirements for the facility, only regulators.	VII.
	150. Action on permit application.	Yes	No requirements for the facility, only regulators.	None
	160. Transfer of permits.	Yes (all)	No requirements for the facility, only regulators.	VIII.S
	170. Permit renewal and expiration.			

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	180. Permanent shutdown for emissions trading.	Yes(all)	No requirements for the facility, only regulators.	VIII.B
	190. Changes to permits.	Yes	No requirements for the facility, only regulators.	None
	200. Administrative permit amendments.	Yes	No requirements for the facility, only regulators.	None
	210. Minor permit modifications.	Yes	No requirements for the facility, only regulators.	None
	220. Group processing of minor permit modifications.	Yes	No requirements for the facility, only regulators.	None
	230. Significant modification procedures.	Yes	No requirements for the facility, only regulators.	None
	240. Reopening for cause.	Yes	No requirements for the facility, only regulators.	None
	250. Malfunction.	Yes	No requirements for the facility, only regulators.	VIII.Q
	260. Enforcement.	Yes	No requirements for the facility, only regulators.	VIII.T
	270. Public participation.	Yes	No requirements for the facility, only regulators.	VIII.U
	280. Operational flexibility.	Yes	No requirements for the facility, only regulators.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	290. Permit review by EPA and affected states.	Yes	No requirements for the facility, only regulators.	None
	300. Voluntary inclusions of additional state-only requirements as applicable state requirements in the permit.	Yes		None
	305. Review and confirmation of this article by board.	Yes		None
		Yes		None
Chapter 80, Part II Article 2	Permit Program Fees 310. Applicability.	Yes	No requirements	None
	320. Definitions.	Yes	No requirements	None
	330. General. A. The owner of any source subject to this article shall pay an annual permit program fee.	Yes	Source has complied through the date of this proposed permit.	VIII.M
	B. Permit program fees collected pursuant to this article for sources subject to Article 1 (9 VAC 5-80-50 et seq.) of this part shall not be used for any purpose other than as provided in Title V of the federal Clean Air Act and associated regulations and policies.	Yes	No requirements for the facility, only regulators.	None
	C. The owner shall be exempt from paying the annual permit program fee in any year for which the fee is assessed at $300 or less.	Yes	No requirements for the facility, only regulators.	None
	340. Annual permit program fee calculation.	Yes	No requirements for the facility, only regulators.	None

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
	350. Annual permit program fee payment. 355. Review and confirmation of this article by board.	Yes	 No requirements for the facility, only regulators.	VIII.M None
Chapter 80, Part II Article 3	Acid Rain Operating Permits.	No	Facility has no affected units. (Power producers)	None
Chapter 80, Part II Article 4	Insignificant Activities.	Yes	No requirements for the facility.	V (list)
Chapter 80, Part II Article 5	State Operating Permits.	Yes	Permissive and applicable, but no requirements for facility.	None
Chapter 80, Part II Article 8	Permits for Major Stationary Sources and Major Modifications Locating in PSD Areas.	No	True Minor Source demonstrated in accordance with 40 CFR 754(c) for the NSR permit. Documented in the NSR permit engineering Analysis dated March 23, 1999	None
Chapter 80, Part II Article 9	Permits for Major Stationary Sources and Major Modifications Locating in PSD Areas.	No	Not located in a nonattainment area listed in 9 VAC 5-20-204	None
Chapter 150	Regulation for Transportation Conformity	No	Applicable to regulators only.	None
Chapter 160	Regulation for General Conformity	No	Applicable to regulators only.	None
Chapter 170, Part I	Regulation for General Administration		No requirements for	

State Requirement (Title 9, Section 5)	Requirement Description	Applicable to This Facility?	Comments	T5 Permit Condition
Definitions		Yes	facility, only authority for regulators.	None
Chapter 190	Variance for Merck Stonewall Plant	No	Not the BFI Landfill	None
Chapter 200	Regulation for National Low Emission Vehicle Program	No	Not applicable to landfills.	None
Chapter 500	Exclusionary General Permits.	No	Not a major source.	None

D. Summary of Applicable Requirements for Emission Units - * (See brief note at end)

The conditions in the NSR permit dated June 27, 2000 made multiple references to the federal regulations. In order to bring all of the applicable requirements into the proposed T5 permit, the permit conditions were expanded, redistributed and reworded. Many of the conditions in the NSR permit were conditional, and based on the possibility that the source might install a landfill gas collection and control system by federal requirement:

1. Standards and Limitations

Condition 3 of the NSR permit (Fugitive Dust/Emissions) was expanded to include an applicable requirement from 9 VAC 50-50-90, a standard for fugitive VOC emissions.
Condition 5(Performance standards for Collection Systems) of the NSR permit was distributed slightly between proposed T5 permit conditions 7, 8, 9 and 10, since the expansion of the condition to include all applicable requirements from the federal regulation referenced in it, was too awkward and unreadable.
Condition 6 (Performance standards for Control Systems) of the NSR permit was distributed between proposed T5 permit conditions 11 and 12, since the expansion of the condition to include all applicable requirements from the federal regulation referenced in it, was too awkward and unreadable.
Condition 7 (Operating Standards for Collection Systems) of the NSR permit was expanded to include an applicable federal requirement to collect landfill gas from certain cells at certain times. This clarified the NSR permit requirement. The short paragraph at the end of condition 7 was expanded to clarify how compliance was to be determined and included the actions for emergency shutdown due to malfunction from condition 37.
Condition 8 (Operating Standards for Control Systems) of the NSR permit was expanded to include the method of compliance and the malfunction procedure from condition 37.
Condition 9(Solid Waste Acceptance Limit) Deleted (III.A.1). It was the basis for the original analysis which showed the landfill could not become a major source. However, it mostly reflects when the peak emissions occur, not so much the magnitude of the maximum emission rate and because the compaction of the landfill has increased, it appears that the landfill will become a major source in the near future. It was deleted and other conditions will require controls be added on a schedule in accordance with 40 CFR 60, Subpart WWW.
Conditions 12 and 13 from the NSR permit (Visible Emission Standards) were unchanged in the proposed T5 permit conditions A.2 and A.3, but were based on BACT and more restrictive, so they subsumed the state general regulatory VEE requirement for new and modified sources.
Condition 24 of the NSR permit was the design plan requirements, and was expanded to include all of the federal requirement wording as proposed T5 permit condition A.5
Condition 34 (Closure of a Landfill) of the NSR permit more accurately deals with the removal requirements for control systems. It appears virtually unaltered as proposed condition A.14.
New condition A.15 (Compliance during periods of Startup, Shutdown and Malfunction) is a new permit requirement that was gleaned from the requirement in 40 CFR 60.752(b)(2)(v) and the existing permit.

2. Monitoring

Condition 16 of the NSR permit (Monitoring the Collection system) was expanded to proposed T5 permit conditions B.2, 3, 4, 5, and 6 because of the requirement to remove references to applicable requirements and replace them with the actual requirements. The result would have been awkward and indecipherable otherwise.
Condition 14 (Test Port and Monitoring Devices) was a boilerplate general requirement in the NSR permit which reflected requirements from many state and federal sources. The references to federal requirements were changed to references to the applicable parts of the proposed T5 permit condition B.1.

Condition 17 was originally a summarized version of corrective action to be taken when measurements indicated an exceedence of the operational limits. The parts applicable to each monitoring device were farmed out to the individual monitoring device conditions in the proposed T5 permit (conditions B.2 through B.6).
New proposed T5 permit requirement B.8 (Monitoring of Alternative Landfill Gas Collection Systems is a condition from the references contained in the NSR permit, but not mentioned directly. It is a requirement from 40 CFR 60.756(e)
New proposed T5 permit requirement B.9 is a new periodic monitoring requirement for control devices, if and when they are installed. It is based on six minutes of casual observation of the stack per week for signs of visible emissions. Corrective action take within 24 hours will not necessitate a Method 9 or 22 VEE, but if the Method 9 or 22 VEE confirms an exceedence within 24 hours, it is a violation of the standard.

3. Recordkeeping
The recordkeeping requirement of the NSR permit (condition 33) was expanded slightly in proposed condition E.1 to include Kb recordkeeping requirements for the tanks and a missing requirement from 40 CFR 60.7. The requirements for the length of time to keep the reports became to varied to reasonably keep as part of that condition, so it was made a new condition E.2.
New proposed T5 permit requirement B.9 makes some new recordkeeping requirements necessary (new T5 condition C.1.p).
Recordkeeping requirements from 40 CFR 60 Subpart Kb appear as proposed T5 condition C.1.o and the length of the recordkeeping requirement is new condition C.2.c.(iii)

4. Testing
Condition 18 of the NSR permit (calculation of the NMOC Emission Rate) was expanded to include the formulas and default values in T5 condition D.1
Condition 19 was originally the testing requirement for any control devices installed in the future. This was expanded significantly to include the applicable testing requirements from 40 CFR 60.8 and multiple state regulations. They are only applicable to any control devices installed, not to the landfill, storage tank, or vehicle activity emissions.
Condition 20 (VEE testing) was also expanded to include many state and federal applicable requirements not stated in the NSR permit.
NSR permit conditions 21, 22, and 23 are the conditional compliance requirements that determine when a collection and control system has to be installed. Condition 21 referred to Tier 1 testing and is obsolete, since the source has already done Tier 2 testing. The remaining two conditions are expanded and broken up into the proposed T5 conditions A.5, D.2 and D.3.
New requirements in proposed T5 condition D.4.d, e, and f, are requirement from 40 CFR 60.8 which did not appear elsewhere (such as general conditions).
New requirements in proposed T5 condition D.5b and portions of D.5.e are requirement from 40 CFR 60.11(e).

5. Reporting
Condition 14 (Test Port and Monitoring Devices) was a boilerplate general requirement in the NSR permit which reflected requirements from many state and federal sources. The references to federal requirements were changed to references to the applicable parts of the proposed T5 permit, and the notification requirement was moved to the proposed T5 permit "notifications" condition E.7.
Reporting requirements that were part of the original NSR permit condition 19 were moved to a new condition E.1 in the proposed T5 permit reporting section detailing the test reporting requirements.
Condition 27 (Annual NMOC Reports) was expanded into proposed T5 condition E.1.
Proposed condition E.2 includes requirements for revising NMOC reports which demonstrated an NMOC emission rate greater than 50 mega-grams after a new calculation demonstrates a lower value and were originally in the NSR permit conditions 22 and 23.
Condition 28 (Annual Monitoring Report) was expanded into Condition E.5.

Condition 29 and 30 (Closure and Control Equipment Removal Reports) appear in an expanded form as Conditions E.3 and E.4 respectively.
Parts of Condition 31 (Notifications) had been deleted since the required notifications had been made and the requirements were obsolete. However, federal and state regulations added more notification requirements, which were included in the expanded T5 condition E.7.
Proposed T5 condition E.8 picked up the requirement for copies of reports and notifications to be sent to EPA from the NSR condition 32.
New notification requirements in proposed T5 condition E.7 (a, b, c, e, f, and h) are derived from requirements in 40 CFR 60.7 which did not appear elsewhere previously. New requirement 7i is from 40 CFR 60.116b (Subpart Kb).

E. Streamlined Requirements
Conditions 12 and 13 from the NSR permit (Visible Emission Standards) were unchanged, but were based on BACT and more restrictive, so they subsumed the state general regulatory VEE requirement for new and modified sources.

F. Obsolete requirements
Condition 10 of the NSR permit was a catchall condition for requirements from 40 CFR 60 Subparts A and WWW which were not stated explicitly in the NSR permit. This condition became obsolete when the NSR permit conditions were expanded into the proposed T5 conditions that state all of the federal requirements explicitly.
Condition 11 had been deleted from the NSR permit at an earlier date as obsolete.
NSR permit condition 21 referred to Tier 1 testing and is obsolete, since the source has already done Tier 2 testing.
Conditions 25 and 26 of the NSR permit are obsolete. The initial design capacity report and the initial NMOC report have already been submitted.
Parts of the NSR permit condition 31 (Notifications) had been deleted at an earlier date since the required notifications had been made and the requirements were thus made obsolete.

G. Facility- Wide Conditions
Condition 15 of the NSR permit (Performance Evaluations) was a facility-wide requirement intended to apply to any device that BFI installs to monitor the landfill. It was moved to the Facility-Wide Requirement category, since the T5 General Requirements were specified in the state permit guidance manual.
Condition 38 of the NSR permit (Minimizing Excess Emissions) is a facility-wide requirement now found in Section IV as condition A.4. The record keeping requirement is on Section IV as condition C.1.
Conditions 39 and 41 were requirements for written procedures and change of ownership (different from general requirement VIII.S.2) and are facility-wide requirements proposed as T5 permit conditions IV.A.5 and 6. The record keeping requirement of NSR condition 39 is moved to facility-wide condition IV.C.1.
New requirement IV.A.1 is the requirement of 9 VAC 5-80-10 L which had not appeared in any permit previously and was not duplicated elsewhere in General Conditions.
New requirement IV.A.2 is the requirement of 9 VAC 5-80-10 C.1L which had not appeared in any permit previously and was not duplicated elsewhere in General Conditions. It has been widely reported that T5 permits allow operation prior to obtaining a New Source Review (NSR) permit. 9 VAC 5 -80-80 C.2 and D.7 make it clear that an NSR permit is required and T5 regulations that allow a source to operate a new or modified source before a T5 permit is issued does not apply to operation without a NSR permit.
New requirement IV.A.3 is the requirement of 9 VAC 5-80-80 C.2 and F.1 andF.2 which had not appeared in any permit previously and was not duplicated elsewhere in General Conditions. It emphasizes the point that the operation after the time a T5 permit revision is due is conditioned upon a timely and complete revision application within the required 12 month period after commencing operation. It clarifies the relationship between NSR and T5 permit applications for modifications of the facility. It is not duplicated by any General Condition.

New Requirement IV.A.7 is found in multiple areas of the regulations, and is not in the General Conditions.

H. General Conditions

Condition 35 (Permit Revocation) was replaced by wording specific for T5 permits from the regulation as General Condition T.
Condition 36 (Inspection) from the NSR permit was replaced by General Condition O.
The remainder of NSR permit condition 37 that was not moved to proposed T5 conditions A.7 and A.8 is found in General Condition F.
The NSR permit condition 42 requiring the source to submit information is a General requirement in Section VIII as condition L.
NSR condition 43 requiring a copy of the permit to be kept on site is proposed General Condition VIII.R.

The following General Conditions are in Section VIII of the permit, and are taken from 9 VAC 5, Chapter 80, Article 1.
Federal Enforceability
Permit Expiration
Recordkeeping and Reporting
Annual Compliance Certification
Permit Deviation Reporting
Failure/Malfunction Reporting
Severability
Duty to Comply
Need to Halt or Reduce Activity not a Defense
Permit action for Cause
Property Rights
Duty to Submit Information
Duty to Pay Permit Fees
Fugitive Dust/Emission Standard
Startup, Shutdown, and Malfunction
Inspection and Entry Requirements
Reopening for Cause
Permit Availability
Transfer of Permits
Malfunction as an Affirmative Defense
Permit Revocation or Termination for Cause
Duty to Supplement of Correct Application
Changes to Permits for Emission trading
Emission Trading

The following requirements are found in various places in the Title 40, Part 60 regulations:
Stratospheric Ozone Protection
Management of Asbestos-Containing Materials
Accidental Release Prevention

* The conditions 9 and 32 in the NSR permit dated June 27, 2000 were revised and issued in the June 14, 2005 NSR permit to remove the annual MSW limit and clarify reporting.

FUTURE APPLICABLE REQUIREMENTS

Future applicable requirements for this facility include the:

A. National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

As used in this section, all terms shall have the meaning as defined in 40 CFR 63.2 of Subpart A, and 40 CFR 63.1990 of Subpart AAAA. A copy of sections of 40 CFR Part 63 Subpart A and 40 CFR Part 63 Subpart AAAA are attached.

The Landfill 'MACT' (40 CFR 63 Subpart AAAA), published January 16, 2003, includes the following additional requirements for affected MSW landfills.

1. The compliance date with respect to the requirements of 40 CFR Part 63, Subpart AAAA is January 16, 2004.
   (40 CFR 63.1945(f))

2. A "Startup, Shutdown and Malfunction" (SSM) Plan shall be developed and implemented for the facility according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site.
   (40 CFR 63.1960)

3. Annual reports of the operation of the GCCS as required by §60.757(f) of NSPS Subpart WWW will be required semi-annually beginning with the first report after the compliance date of January 16, 2004.
   (40 CFR 63.1980)

4. Records and reports required by 40 CFR 63, Subpart AAAA, with respect to the SSM plan should include:

   a. Actions taken during a SSM event that are consistent with the SSM plan shall be recorded as required by §63.6(e)(3)(iii) and §63.10(b) and reported in the semi-annual SSM reports submit as required by §63.6(e)(3)(iii) and §63.10(d)(5).

   b. Actions taken during a SSM event that are inconsistent with the SSM plan must be recorded, as required by §63.6(e)(3), and reported within 2 working days of the event, followed by a letter to the Administrator within 7 working days after the end of the event, in accordance with §63.10(d)(5). Any new actions that are indicated as appropriate during an SSM event shall be incorporated in a new SSM Plan.

(40 CFR 63.6(e)(3) & 63.10(d)(5))

(40 CFR 63.1930 through 63.1990, 63.6(e)(3), 40 CFR 63.10(b) & (d))

On May 23, 2002, EPA proposed significant revisions (67 FR 36476) in order to clarify: 1) responsibility for compliance activities on-site; 2) definition of treated landfill gas; 3) initial test performance test requirements; and 4) compliance activities conducted by third parties with control systems off-site. A copy of 67 FR 36476 is attached to the Title V permit and this SOB for reference.

LANDGEM MODEL

Source: C:\PROGRA~1\LANDGEM\OLDDOM.PRM

Model Parameters

Lo : 170.00 m^3 / Mg ***** User Mode Selection *****
k : 0.0500 1/yr ***** User Mode Selection *****
NMOC : 195.00 ppmv ***** User Mode Selection *****
Methane : 50.0000 % volume
Carbon Dioxide : 50.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal
Year Opened : 1994 Current Year : 2010 Closure Year: 2010
Capacity : 9585314 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)	NMOC Emission Rate (Mg/yr)	(Cubic m/yr)
1995	1.313E+05	1.561E+00	4.354E+02
1996	3.581E+05	4.179E+00	1.166E+03
1997	6.051E+05	6.911E+00	1.928E+03
1998	9.211E+05	1.033E+01	2.881E+03
1999	1.264E+06	1.390E+01	3.879E+03
2000	1.730E+06	1.875E+01	5.232E+03
2001	2.183E+06	2.323E+01	6.480E+03
2002	2.660E+06	2.777E+01	7.746E+03
2003	3.152E+06	3.225E+01	8.997E+03
2004	3.817E+06	3.858E+01	1.076E+04
2005	4.624E+06	4.630E+01	1.292E+04
2006	5.561E+06	5.516E+01	1.539E+04
2007	6.544E+06	6.416E+01	1.790E+04
2008	7.576E+06	7.329E+01	2.045E+04
2009	8.660E+06	8.260E+01	2.304E+04
2010	9.585E+06	8.956E+01	2.499E+04
2011	9.585E+06	8.519E+01	2.377E+04
2012	9.585E+06	8.104E+01	2.261E+04
2013	9.585E+06	7.709E+01	2.151E+04
2014	9.585E+06	7.333E+01	2.046E+04
2015	9.585E+06	6.975E+01	1.946E+04
2016	9.585E+06	6.635E+01	1.851E+04
2017	9.585E+06	6.311E+01	1.761E+04
2018	9.585E+06	6.004E+01	1.675E+04
2019	9.585E+06	5.711E+01	1.593E+04
2020	9.585E+06	5.432E+01	1.516E+04
2021	9.585E+06	5.167E+01	1.442E+04
2022	9.585E+06	4.915E+01	1.371E+04
2023	9.585E+06	4.676E+01	1.304E+04
2024	9.585E+06	4.448E+01	1.241E+04
2025	9.585E+06	4.231E+01	1.180E+04
2026	9.585E+06	4.024E+01	1.123E+04
2027	9.585E+06	3.828E+01	1.068E+04
2028	9.585E+06	3.641E+01	1.016E+04
2029	9.585E+06	3.464E+01	9.663E+03
2030	9.585E+06	3.295E+01	9.192E+03
2031	9.585E+06	3.134E+01	8.744E+03

Source: C:\PROGRA~1\LANDGEM\OLDDOM1.PRM

Model Parameters

Lo : 100.00 m^3 / Mg ***** User Mode Selection *****
k : 0.0400 1/yr ***** User Mode Selection *****
NMOC : 195.00 ppmv ***** User Mode Selection *****
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Carbon Dioxide : 50.0000 % volume

Landfill Parameters

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Year Opened : 1994 Current Year : 2010 Closure Year: 2010
Capacity : 9585314 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)	Methane Emission Rate (Mg/yr)	(Cubic m/yr)
1995	1.313E+05	3.505E+02	5.254E+05
1996	3.581E+05	9.420E+02	1.412E+06
1997	6.051E+05	1.564E+03	2.345E+06
1998	9.211E+05	2.346E+03	3.517E+06
1999	1.264E+06	3.170E+03	4.752E+06
2000	1.730E+06	4.287E+03	6.426E+06
2001	2.183E+06	5.329E+03	7.988E+06
2002	2.660E+06	6.394E+03	9.584E+06
2003	3.152E+06	7.454E+03	1.117E+07
2004	3.817E+06	8.937E+03	1.340E+07
2005	4.624E+06	1.074E+04	1.610E+07
2006	5.561E+06	1.282E+04	1.922E+07
2007	6.544E+06	1.494E+04	2.239E+07
2008	7.576E+06	1.711E+04	2.565E+07
2009	8.660E+06	1.933E+04	2.898E+07
2010	9.585E+06	2.104E+04	3.154E+07
2011	9.585E+06	2.022E+04	3.030E+07
2012	9.585E+06	1.942E+04	2.912E+07
2013	9.585E+06	1.866E+04	2.797E+07
2014	9.585E+06	1.793E+04	2.688E+07
2015	9.585E+06	1.723E+04	2.582E+07
2016	9.585E+06	1.655E+04	2.481E+07
2017	9.585E+06	1.590E+04	2.384E+07
2018	9.585E+06	1.528E+04	2.290E+07
2019	9.585E+06	1.468E+04	2.200E+07
2020	9.585E+06	1.410E+04	2.114E+07
2021	9.585E+06	1.355E+04	2.031E+07
2022	9.585E+06	1.302E+04	1.952E+07
2023	9.585E+06	1.251E+04	1.875E+07
2024	9.585E+06	1.202E+04	1.802E+07
2025	9.585E+06	1.155E+04	1.731E+07
2026	9.585E+06	1.110E+04	1.663E+07
2027	9.585E+06	1.066E+04	1.598E+07
2028	9.585E+06	1.024E+04	1.535E+07
2029	9.585E+06	9.841E+03	1.475E+07
2030	9.585E+06	9.455E+03	1.417E+07
2031	9.585E+06	9.084E+03	1.362E+07
2032	9.585E+06	8.728E+03	1.308E+07
2033	9.585E+06	8.386E+03	1.257E+07
2034	9.585E+06	8.057E+03	1.208E+07
2035	9.585E+06	7.741E+03	1.160E+07
2036	9.585E+06	7.437E+03	1.115E+07
2037	9.585E+06	7.146E+03	1.071E+07
2038	9.585E+06	6.866E+03	1.029E+07
2039	9.585E+06	6.596E+03	9.887E+06

2040	9.585E+06	6.338E+03	9.500E+06
2041	9.585E+06	6.089E+03	9.127E+06
2042	9.585E+06	5.850E+03	8.769E+06
2043	9.585E+06	5.621E+03	8.425E+06
2044	9.585E+06	5.401E+03	8.095E+06
2045	9.585E+06	5.189E+03	7.778E+06
2046	9.585E+06	4.985E+03	7.473E+06
2047	9.585E+06	4.790E+03	7.180E+06
2048	9.585E+06	4.602E+03	6.898E+06
2049	9.585E+06	4.422E+03	6.628E+06
2050	9.585E+06	4.248E+03	6.368E+06
2051	9.585E+06	4.082E+03	6.118E+06
2052	9.585E+06	3.922E+03	5.878E+06
2053	9.585E+06	3.768E+03	5.648E+06
2054	9.585E+06	3.620E+03	5.426E+06
2055	9.585E+06	3.478E+03	5.214E+06
2056	9.585E+06	3.342E+03	5.009E+06
2057	9.585E+06	3.211E+03	4.813E+06
2058	9.585E+06	3.085E+03	4.624E+06
2059	9.585E+06	2.964E+03	4.443E+06
2060	9.585E+06	2.848E+03	4.268E+06
2061	9.585E+06	2.736E+03	4.101E+06
2062	9.585E+06	2.629E+03	3.940E+06
2063	9.585E+06	2.526E+03	3.786E+06
2064	9.585E+06	2.427E+03	3.637E+06
2065	9.585E+06	2.332E+03	3.495E+06
2066	9.585E+06	2.240E+03	3.358E+06
2067	9.585E+06	2.152E+03	3.226E+06
2068	9.585E+06	2.068E+03	3.100E+06
2069	9.585E+06	1.987E+03	2.978E+06
2070	9.585E+06	1.909E+03	2.861E+06
2071	9.585E+06	1.834E+03	2.749E+06
2072	9.585E+06	1.762E+03	2.641E+06
2073	9.585E+06	1.693E+03	2.538E+06
2074	9.585E+06	1.627E+03	2.438E+06
2075	9.585E+06	1.563E+03	2.343E+06
2076	9.585E+06	1.502E+03	2.251E+06
2077	9.585E+06	1.443E+03	2.162E+06
2078	9.585E+06	1.386E+03	2.078E+06
2079	9.585E+06	1.332E+03	1.996E+06
2080	9.585E+06	1.280E+03	1.918E+06
2081	9.585E+06	1.229E+03	1.843E+06
2082	9.585E+06	1.181E+03	1.770E+06
2083	9.585E+06	1.135E+03	1.701E+06
2084	9.585E+06	1.090E+03	1.634E+06
2085	9.585E+06	1.048E+03	1.570E+06
2086	9.585E+06	1.007E+03	1.509E+06
2087	9.585E+06	9.671E+02	1.450E+06
2088	9.585E+06	9.292E+02	1.393E+06
2089	9.585E+06	8.927E+02	1.338E+06
2090	9.585E+06	8.577E+02	1.286E+06
2091	9.585E+06	8.241E+02	1.235E+06
2092	9.585E+06	7.918E+02	1.187E+06
2093	9.585E+06	7.607E+02	1.140E+06
2094	9.585E+06	7.309E+02	1.096E+06
2095	9.585E+06	7.022E+02	1.053E+06
2096	9.585E+06	6.747E+02	1.011E+06
2097	9.585E+06	6.482E+02	9.717E+05
2098	9.585E+06	6.228E+02	9.336E+05
2099	9.585E+06	5.984E+02	8.970E+05
2100	9.585E+06	5.749E+02	8.618E+05
2101	9.585E+06	5.524E+02	8.280E+05
2102	9.585E+06	5.307E+02	7.955E+05
2103	9.585E+06	5.099E+02	7.643E+05
2104	9.585E+06	4.899E+02	7.344E+05
2105	9.585E+06	4.707E+02	7.056E+05
2106	9.585E+06	4.523E+02	6.779E+05
2107	9.585E+06	4.345E+02	6.513E+05
2108	9.585E+06	4.175E+02	6.258E+05
2109	9.585E+06	4.011E+02	6.013E+05

2110	9.585E+06	3.854E+02	5.777E+05
2111	9.585E+06	3.703E+02	5.550E+05
2112	9.585E+06	3.558E+02	5.333E+05
2113	9.585E+06	3.418E+02	5.124E+05
2114	9.585E+06	3.284E+02	4.923E+05
2115	9.585E+06	3.155E+02	4.730E+05
2116	9.585E+06	3.032E+02	4.544E+05
2117	9.585E+06	2.913E+02	4.366E+05
2118	9.585E+06	2.799E+02	4.195E+05
2119	9.585E+06	2.689E+02	4.030E+05
2120	9.585E+06	2.583E+02	3.872E+05
2121	9.585E+06	2.482E+02	3.720E+05
2122	9.585E+06	2.385E+02	3.575E+05
2123	9.585E+06	2.291E+02	3.434E+05
2124	9.585E+06	2.201E+02	3.300E+05
2125	9.585E+06	2.115E+02	3.170E+05
2126	9.585E+06	2.032E+02	3.046E+05
2127	9.585E+06	1.952E+02	2.927E+05
2128	9.585E+06	1.876E+02	2.812E+05
2129	9.585E+06	1.802E+02	2.702E+05
2130	9.585E+06	1.732E+02	2.596E+05
2131	9.585E+06	1.664E+02	2.494E+05
2132	9.585E+06	1.599E+02	2.396E+05
2133	9.585E+06	1.536E+02	2.302E+05
2134	9.585E+06	1.476E+02	2.212E+05
2135	9.585E+06	1.418E+02	2.125E+05
2136	9.585E+06	1.362E+02	2.042E+05
2137	9.585E+06	1.309E+02	1.962E+05
2138	9.585E+06	1.257E+02	1.885E+05
2139	9.585E+06	1.208E+02	1.811E+05
2140	9.585E+06	1.161E+02	1.740E+05
2141	9.585E+06	1.115E+02	1.672E+05
2142	9.585E+06	1.072E+02	1.606E+05
2143	9.585E+06	1.030E+02	1.543E+05
2144	9.585E+06	9.892E+01	1.483E+05
2145	9.585E+06	9.504E+01	1.425E+05
2146	9.585E+06	9.131E+01	1.369E+05
2147	9.585E+06	8.773E+01	1.315E+05
2148	9.585E+06	8.429E+01	1.263E+05
2149	9.585E+06	8.099E+01	1.214E+05
2150	9.585E+06	7.781E+01	1.166E+05
2151	9.585E+06	7.476E+01	1.121E+05
2152	9.585E+06	7.183E+01	1.077E+05
2153	9.585E+06	6.901E+01	1.034E+05
2154	9.585E+06	6.631E+01	9.939E+04
2155	9.585E+06	6.371E+01	9.549E+04
2156	9.585E+06	6.121E+01	9.175E+04
2157	9.585E+06	5.881E+01	8.815E+04
2158	9.585E+06	5.650E+01	8.469E+04
2159	9.585E+06	5.429E+01	8.137E+04
2160	9.585E+06	5.216E+01	7.818E+04
2161	9.585E+06	5.011E+01	7.511E+04
2162	9.585E+06	4.815E+01	7.217E+04
2163	9.585E+06	4.626E+01	6.934E+04
2164	9.585E+06	4.445E+01	6.662E+04
2165	9.585E+06	4.270E+01	6.401E+04
2166	9.585E+06	4.103E+01	6.150E+04
2167	9.585E+06	3.942E+01	5.909E+04
2168	9.585E+06	3.787E+01	5.677E+04
2169	9.585E+06	3.639E+01	5.454E+04
2170	9.585E+06	3.496E+01	5.241E+04
2171	9.585E+06	3.359E+01	5.035E+04
2172	9.585E+06	3.227E+01	4.838E+04
2173	9.585E+06	3.101E+01	4.648E+04
2174	9.585E+06	2.979E+01	4.466E+04
2175	9.585E+06	2.862E+01	4.291E+04
2176	9.585E+06	2.750E+01	4.122E+04
2177	9.585E+06	2.642E+01	3.961E+04
2178	9.585E+06	2.539E+01	3.805E+04
2179	9.585E+06	2.439E+01	3.656E+04

2180	9.585E+06	2.344E+01	3.513E+04
2181	9.585E+06	2.252E+01	3.375E+04
2182	9.585E+06	2.163E+01	3.243E+04
2183	9.585E+06	2.079E+01	3.116E+04
2184	9.585E+06	1.997E+01	2.993E+04
2185	9.585E+06	1.919E+01	2.876E+04
2186	9.585E+06	1.844E+01	2.763E+04
2187	9.585E+06	1.771E+01	2.655E+04
2188	9.585E+06	1.702E+01	2.551E+04
2189	9.585E+06	1.635E+01	2.451E+04
2190	9.585E+06	1.571E+01	2.355E+04
2191	9.585E+06	1.509E+01	2.262E+04
2192	9.585E+06	1.450E+01	2.174E+04
2193	9.585E+06	1.393E+01	2.088E+04
2194	9.585E+06	1.339E+01	2.007E+04
2195	9.585E+06	1.286E+01	1.928E+04
2196	9.585E+06	1.236E+01	1.852E+04
2197	9.585E+06	1.187E+01	1.780E+04
2198	9.585E+06	1.141E+01	1.710E+04
2199	9.585E+06	1.096E+01	1.643E+04
2200	9.585E+06	1.053E+01	1.578E+04
2201	9.585E+06	1.012E+01	1.517E+04
2202	9.585E+06	9.721E+00	1.457E+04
2203	9.585E+06	9.340E+00	1.400E+04
2204	9.585E+06	8.973E+00	1.345E+04
2205	9.585E+06	8.622E+00	1.292E+04
2206	9.585E+06	8.284E+00	1.242E+04
2207	9.585E+06	7.959E+00	1.193E+04
2208	9.585E+06	7.647E+00	1.146E+04
2209	9.585E+06	7.347E+00	1.101E+04